

CNA's Integrated Ship Database

Fourth Quarter 2011 Update

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CNA Interactive Software
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Photo credit

"Image: 070810-N-2638R-001.jpg. Description: Fuel lines connect USS Kitty Hawk (CV 63), USS McCampbell (DDG 85) and the oiler USNS John Ericsson (T-AO 194) during a replenishment at sea (RAS)." *Navy.mil Official Website of the United States Navy*, last accessed May 24, 2012, at http://www.navy.mil/view_single.asp?id=49396

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14. ABSTRACT CNA's Integrated Ship Database (ISDB) brings together data on naval ships from disparate online government sources such as the Naval Vessel Register, the Military Sealift Command's Ship Inventory, USN Chief of Information's Navy Fact File, the Naval History and Heritage Command's Dictionary of American Naval Fighting Ships, and the Maritime Administration's Naval Defense Reserve Fleet Inventory. This document and its associated database file represent the 24th quarterly update of the ISDB since its inception in December 2005. New to the ISDB with this update is information on the operational ages of ships, both current and historical.					
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Introduction

Background

In December 2005, we published the first edition of CNA's Integrated Ship Database (ISDB) [1]. Our intent then, as now, was to bring together data on naval ships already available from separate sources into a single combined database tool. We wanted to keep this integrated information current. We wanted to make it readily accessible for analysis and reporting. And finally, we wanted to be able to rapidly respond to requests from our sponsor¹, from other CNA research scientists and analysts, and from others in government as well.

Since 2005, we have published 23 quarterly updates [2–24]. They are all available online on the [Integrated Ship Database page](#) of CNA's website, www.cna.org [25].

In this CNA Interactive Software document, we present our update for the fourth quarter of calendar year 2011.

Organization of the document

In the next section of the paper, we summarize the changes in this update, some of which have resulted in a “new look” for the database file. In the final section, we present an overview of the layout of the file and give some basic instructions on using the database. Because of the “new look,” these instructions should be of value to the experienced user as well as to the beginner.

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1. This work is being conducted as part of the *Historic Fleet Employment Database Project*, sponsored by the Deputy Chief of Naval Operations for Operations, Plans and Strategy (N3/N5).

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Changes in this update

In the Excel file

Change to Excel 2010

With this update, we've moved from Microsoft Excel 2003 to Excel 2010 as our development and product software. Because we've introduced macros this time, the file type is now an Excel Macro-Enabled Worksheet (with the associated file name extension of .xlsm).

The .xlsm file type opens in Excel 2010 and Excel 2007, but not in Excel 2003 or earlier versions. We also provide an Excel 97-2003 Worksheet (or .xls) file for users with the older versions of Excel. The newly added macros will function with the earlier versions.

New worksheets added

The Document worksheet

In past updates, we reported changes as CNA Informal Memoranda (CMEs) apart from the Interactive Software product. In this update, we merge the two document types into a single Interactive Software document. We also insert the written document into a new worksheet tab in the Excel database file named *The Document*. Figure 1 shows the new sheet.

The document file and the Excel files are all available on the [Integrated Ship Database page](#) of CNA's web site – www.cna.org [25].

The Directory worksheet

To facilitate easier navigation, we added a directory sheet. Figure 2 displays *The Directory* sheet.

Figure 1. *The Document* worksheet

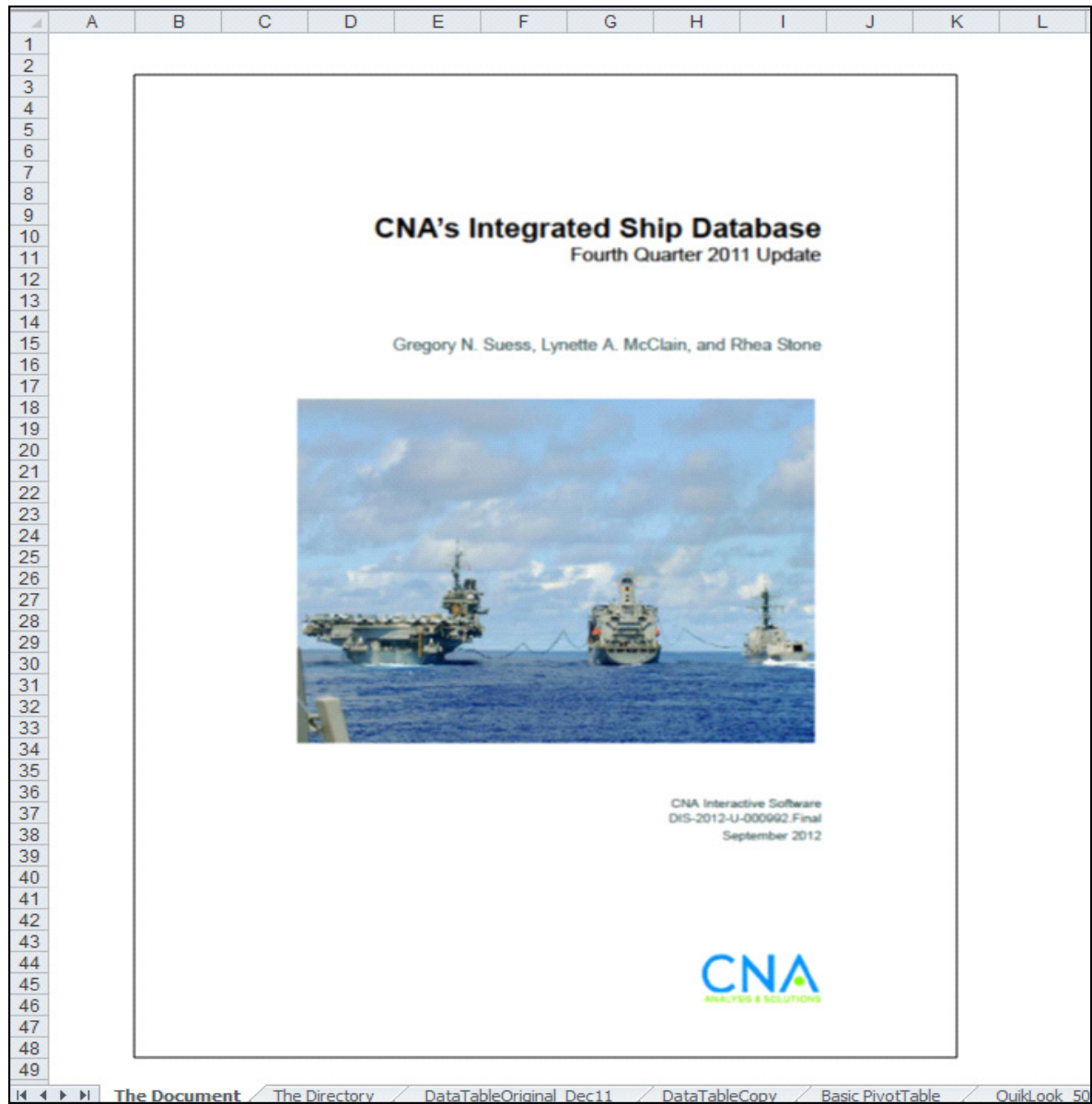


Figure 2. *The Directory* worksheet

	A	B	C
1			
2			
3	Database	DataTableOriginal Dec11	
4			
5	Database Worksheet	DataTableCopy	
6			
7	Pivot Tables	Basic Pivot Table	
8			
9		QuikLook Pivot Table on SECNAVINST 5030.8A Battleforce Ships	
10		QuikLook Pivot Table on SECNAVINST 5030.8A Non-Battleforce Ships	
11			
12		QuikLook Pivot Table for NVR Ship Battle Forces	
13			
14		QuikLook Pivot Table for NVR Local Defense and Miscellaneous Support Forces	
15			
16		Ship-Age Pivot Table for Battleforce Ships	
17			
18			
19			
20			
21			
22			

The Directory contains hyperlinks to the various worksheets in the file as indicated by the blue, underlined text font. For example, if you clicked on the link to the Ship-Age Pivot Table, you would see that sheet as shown in figure 3.

To navigate back to the directory page, you can just select the link in cell A1 of the Pivot Table.

The Ship-Age Pivot Table

We added the *Ship-Age Pivot Table* as a result of a recent request for information on the ages of ships in fleet now, and in the past. In the opening view (Figure 3), the pivot table summarizes the age data for ships currently in the Battleforce.

The data in the pivot table is organized according to the various groups in the Secretary of the Navy's Instruction on ship classification and Battleforce ship counting [26], i.e. Force Category, Ship Category, Ship Classification, etc. The table shows the summary data for

Figure 3. Opening view of Ship-Age Pivot Table

	A	B	C	D	E	F	G	H	I	J	K
1	Return to The Directory										
2											
3											
4	5030.8A Force	5030.8A Ship Category	5030.8A Ship Classification	5030.8A Ship Type	Hull No. (NVR Link)	Ship Name	Commission Date	Data Count of Age	Average of Age	Max of Age	Min of Age
5	▢ Battleforce	▢ Combatant Ship	▢ Warship/Aircraft Carrier	▢ Conventional Take Off and Landing Aircraft Carriers/Multi-purpose Aircraft Carrier (nuclear-powered)				11	24.0	50.7	3.1
6			Warship/Aircraft Carrier Total					11	24.0	50.7	3.1
7			▢ Warship/Surface Combatant	▢ Cruisers/Guided Missile Cruiser				22	22.1	25.9	18.2
8				▢ Destroyers/Guided Missile Destroyer				61	11.4	21.2	1.2
9				▢ Frigates/Guided Missile Frigate				26	27.8	30.3	23.0
10				▢ Littoral Combat Ship/Littoral Combat Ship				2	3.2	3.8	2.5
11			Warship/Surface Combatant					111	17.2	30.3	1.2
12			▢ Warship/Submarine	▢ Attack Submarines/Submarine (nuclear-powered)				53	19.9	31.4	0.9
13				▢ Ballistic Missile Submarines/Ballistic Missile Submarine (nuclear-powered)				14	21.6	27.8	14.9
14				▢ Guided Missile Submarines/Guided Missile Submarine (nuclear-powered)				4	29.5	30.7	28.4
15			Warship/Submarine Total					71	20.7	31.4	0.9
16			▢ Warship/Amphibious Warfare	▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (general purpose)				1	32.2	32.2	32.2
17				▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (multi-purpose)				8	15.4	23.1	3.2
18				▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Transport Dock				8	13.6	43.7	0.5
19				▢ Landing Craft Carriers/Dock Landing Ship				12	21.1	27.5	14.3
20			Warship/Amphibious Warfare					29	17.8	43.7	0.5
21			▢ Other Combatant/Combat	▢ Underway Replenishment/Dry Cargo and Ammunition Ship				12	3.4	6.0	0.7
22				▢ Underway Replenishment/Fast Combat Support Ship				4	16.9	18.4	14.2
23				▢ Underway Replenishment/Ammunition Ship				1	40.6	40.6	40.6
24				▢ Underway Replenishment/Oiler				15	20.9	25.5	16.1
25			Other Combatant/Combat Logistics Total					32	14.5	40.6	0.7
26			▢ Other Combatant/Fleet	▢ Command/Command Ship				2	41.5	41.5	41.4
27				▢ Material Support/Submarine Tender				2	33.0	33.3	32.7
28				▢ Salvage Ships/Salvage Ships				4	26.3	26.9	25.7
29				▢ Fleet Ocean Tugs/Fleet Ocean Tugs				4	31.6	32.1	30.9
30				▢ Surveillance/Surveillance				5	18.2	20.9	11.7
31			Other Combatant/Fleet Support Total					17	27.7	41.5	11.7
32			▢ Other Combatant/Mine Warfare Type Ships	▢ Mine Countermeasures Ships/Mine Countermeasures Ship				14	20.9	24.8	18.0
33			Other Combatant/Mine Warfare Type Ships Total					14	20.9	24.8	18.0
34		Combatant Ship Total						285	18.9	50.7	0.5
35	Grand Total							285	18.9	50.7	0.5
36											
37											

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QuickLook_5030.8A NonBattleforce

QuickLook_NVR Ship Battle Forces

QuickLook_NVR LocDef&Misc Spt Force

Ship-Age PivotTable

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QuikLook_5030.8A NonBattleforce

QuikLook_NVR Ship Battle Forces

QuikLook_NVR LocDef&Misc Spt Force

Ship-Age PivotTable

each group including the number of ships in the group, the average age of the group, and the maximum and minimum ages of units in the group.

Changes to *DataTableOriginal*

DataTableOriginal_Dec11 is the worksheet containing all the data. Here we discuss the changes to this sheet.

The Age field

We added a field to the database for calculating the age of a ship. Figure 4 shows the location of the new field in column AB. It lies in the section with major dates in the life of a ship, i.e. Award Date, Keel Date, Delivery Date, Commission Date, Decommission/Out-of-Action Date, Stricken Date between the Commission and Decommission/Out-of-Action fields.

For ships currently in the fleet. We calculate the age of ships currently in the fleet as the fractional years between the Delivery Date and the current date. We selected the Delivery Date, and not the Commission Date, because of the direction in SECNAVINST 5030.8A:

Battleforce ships are counted as part of the Navy's active inventory effective upon acceptance by the Navy's accepting authority, Commander, Naval Sea Systems Command (COMNAVSEASYS COM).

Specifically, we used the Excel functions, YEARFRAC() and TODAY(), to determine the age:

Age = YEARFRAC(TODAY(), "Delivery Date", 1)

where "1" specifies the number of significant decimals displayed.

Figure 4. New field for calculating ship age

2	Ship Name	Abbrev	Prefix	Hull No. (NVR Link)	Award Date	Keel Date	Launch Date	Delivery Date	Commission Date	Age	Decommission nROA Da	Inactivation Date	Stricken Date
273	MARYLAND	MAR	USS	SSN-738	3/14/1986	4/22/1986	8/30/1991	5/31/1992	6/13/1992	20.1			
274	NEBRASKA	NEB	USS	SSN-739	5/26/1987	7/6/1987	8/15/1992	6/18/1993	7/10/1993	19.1			
275	RHODE ISLAND	RHO	USS	SSN-740	1/5/1988	3/15/1988	7/17/1993	6/22/1994	7/19/1994	18.1			
276	MAINE	MNE	USS	SSN-741	10/5/1988	7/23/1990	7/17/1994	6/20/1995	7/23/1995	17.1			
277	VTOMBAR	VTO	USS	SSN-742	10/23/1989	8/19/1991	7/15/1995	6/20/1996	7/13/1996	16.1			
278	LOUISIANA	LJA	USS	SSN-743	12/19/1990	10/23/1992	7/27/1996	5/14/1997	9/6/1997	14.3			
279	OHIO	CHI	USS	SSN-745	7/25/1974	4/10/1976	4/7/1979	10/28/1981	1/19/1981	30.7			
280	MICHIGAN	MIC/MCH	USS	SSN-747	2/28/1975	4/4/1977	4/26/1980	8/20/1982	9/19/1982	29.9			
281	FLORIDA	FLA	USS	SSN-748	2/28/1975	1/19/1981	1/14/1981	5/17/1982	6/18/1983	29.2			
282	GEORGIA	GEO	USS	SSN-749	2/28/1976	4/7/1979	1/10/1982	1/17/1984	2/19/1984	28.5			
283	EMORY S. LAND	ESL	USS	SSN-750	10/29/1974	3/27/1976	5/4/1977	3/27/1979	7/7/1979	33.4			
284	FRANK CABLE	FCB	USS	SSN-751	10/29/1974	3/27/1976	1/14/1978	9/23/1979	10/29/1979	32.8			
285	MICHAEL V. SMITH	MVSM	USS	SSN-752	10/29/1974	3/27/1976	10/19/1979	12/18/1979	1/16/1981	41.6			
286	PAUL F. FOSTER	FFF	USS	SSN-753	10/29/1974	3/27/1976	2/22/1977	2/19/1979	2/27/1979	36.4			
287	PREVAIL			SSN-754	2/13/1981	3/13/1985	12/7/1985	3/14/1986		26.4			
288	SAN DIEGO	SDO	SSG	SSG-22	6/12/2006	5/23/2007	5/17/2010	12/16/2011		0.6			
289	BOONE	BOO	USS	SSN-758	1/23/1978	3/27/1979	1/16/1980	5/16/1982	5/15/1982	30.2			
290	STEPHEN V. GROVES	SVG	USS	SSN-759	1/23/1978	3/16/1980	4/14/1981	3/15/1982	4/17/1982	30.4			
291	CROMMELIN	CRO	USS	SSN-760	4/27/1979	5/30/1980	7/21/1981	6/19/1983	6/19/1983	29.1			
292	CURTS	CUR	USS	SSN-761	4/27/1979	1/19/1981	3/16/1982	9/20/1983	10/15/1983	28.9			
293	MCCUSKY	MCL/MCC	USS	SSN-762	4/27/1979	10/23/1981	9/19/1982	1/14/1983	12/10/1983	29.7			
294	KLARKING	KLK	USS	SSN-763	4/27/1979	2/19/1982	9/18/1982	8/15/1983	8/20/1983	28.9			
295	DE VERT	DEV	USS	SSN-764	4/28/1980	6/14/1982	12/15/1982	1/10/1983	1/19/1983	28.7			
296	ROBERT G. BRADLEY	RGB	USS	SSN-765	4/28/1980	12/28/1982	8/13/1983	6/22/1984	6/30/1984	28.1			
297	SIMPSON	SIM	USS	SSN-766	3/22/1982	2/27/1984	8/31/1984	9/13/1985	9/23/1985	26.8			
298	RODNEY M. DAVIS	RMD	USS	SSN-767	10/28/1982	2/19/1985	1/19/1986	4/30/1987	5/19/1987	25.2			
299	SHADWELL			SSN-768	3/19/1981	1/17/1984	5/24/1984	7/24/1984	7/24/1984	38.0			
300	PHILADELPHIA	PHI	SSN-769	10/19/71	8/12/1972	10/19/74	6/19/1977	6/19/1977		34.1	6/29/2011		
301	MEMPHIS	MEM		SSN-770	2/14/1971	6/23/1973	4/19/1976	12/14/1977	12/19/1977	37.3		4/7/2011	
302	SHASTA	SHA		SSN-771	2/10/1965	1/10/1965	4/21/1971	2/14/1972	2/25/1972	48.1		4/29/2011	
303	NASSAU	NAS		SSN-772	1/16/1970	12/19/70	12/19/78	6/25/1979	7/13/1979	31.8	3/39/2011		
304	CLEVELAND	CLE		SSN-773	1/25/1963	10/29/1964	5/7/1966	4/3/1967	4/23/1967	44.5	9/30/2011		
305	DUBUQUE	DUB		SSN-774	1/25/1963	1/25/1965	9/6/1966	8/23/1967	9/19/1967	43.9	6/30/2011		
306	LOS ANGELES	LAX		SSN-775	10/19/71	10/19/72	4/16/1974	1/12/1976	1/13/1976	34.3	2/14/2011	2/19/2010	2/14/2011
307	KITTY HAWK	KHK		SSN-776	10/19/1955	12/27/1956	5/23/1960	4/19/1961	5/12/1961	48.1	5/12/2009	5/12/2009	5/12/2009
308	TARAVA	TAR		SSN-777	6/19/1963	1/15/1971	12/19/1973	5/14/1976	5/29/1976	32.9	3/31/2009	3/31/2009	
309	CHARLESTON			SSN-778	6/19/1965	12/5/1966	12/23/1967	12/15/1968	12/14/1968	23.4	4/27/1992		
310	DORHAM			SSN-779	6/19/1965	7/10/1967	3/23/1968	4/19/1969	4/24/1969	24.9	2/25/1994		
311	MOBILE			SSN-780	6/19/1965	1/15/1968	1/15/1969	9/19/1969	2/23/1969	24.4	1/23/1992		
312	ST. LOUIS			SSN-781	6/19/1965	1/15/1968	1/15/1969	9/19/1969	1/22/1969	23.1	1/22/1992		
313	EL PASO			SSN-782	8/22/1966	10/23/1968	5/17/1969	12/29/1969	1/17/1970	24.3	4/23/1994		
314	JUNEAU	JUN		SSN-783	5/22/1963	2/12/1966	2/12/1966	7/17/1968	7/17/1968	29.3	10/31/2008	10/31/2008	
315	NASHVILLE	NSH		SSN-784	5/15/1964	3/14/1966	10/7/1967	12/26/1969	2/14/1970	39.8	9/30/2009	9/30/2009	
316	MOUNT BAKER	MTB		SSN-785	3/15/1970	10/23/1971	7/16/1972	7/22/1972	24.4	12/19/1996			
317	MOHAWK			SSN-786	2/27/1978	3/22/1979	5/17/1980	10/16/1980	N/A				
318	MELVILLE			SSN-787	9/30/1966	7/12/1967	7/10/1968	8/27/1969	N/A				
319	KNOX			SSN-788	9/30/1966	9/16/1967	8/27/1968	1/14/1970	N/A				
320	THOMAS G. THOMPSON			SSN-789	9/30/1966	2/24/1969	2/24/1969	7/16/1970	N/A				
321	ROGER REVELLE			SSN-790	1/19/1993	12/19/1993	4/20/1995	6/19/1996	N/A				
322	ATLANTIS			SSN-791	2/16/1994	8/16/1994	2/19/1996	2/26/1997	N/A				
323	KILO MOJANA			SSN-792	10/27/1999	2/19/2001	1/17/2001	9/12/2002	N/A				
324	CASSIN YOUNG			SSN-793	6/14/1942	3/10/1943	9/12/1943	12/19/1943	12/19/1943	6.3	4/29/1984		12/19/1974
325	TRIPOLI			SSN-794	12/10/1962	6/15/1964	7/13/1965	7/20/1966	8/15/1966	29.2	9/15/1995		9/15/1995
326	KELLAR			SSN-795	1/18/1962	1/10/1962	7/30/1964	9/31/1964	N/A				
327	IOWA			SSN-796	7/19/1939	8/27/1940	8/27/1942	3/28/1943	2/22/1943	47.6	10/26/1990		3/17/2006
328	TICOMDEROGA	TICD		SSN-797	8/22/1978	12/19/1980	4/23/1981	12/19/1982	12/19/1982	21.8	9/30/2004		9/30/2004
329	RANGER	RGR		SSN-798	2/16/1954	2/16/1954	8/19/1956	8/19/1957	8/19/1957	35.7	3/17/1993		3/17/1993
330	JOHN F. KENNEDY	JFK		SSN-799	4/10/1964	8/22/1964	8/19/1966	8/19/1968	8/19/1968	38.9	8/17/2007		8/17/2007
331	EDSON			SSN-800	12/17/1956	12/13/1956	1/14/1958	10/19/1958	1/17/1958	30.1	12/16/1988		12/16/1988
332	CHARLES F. ADAMS			SSN-801	3/28/1957	6/15/1958	9/19/1959	8/19/1960	8/19/1960	29.9	10/20/1992		10/20/1992
333	SEA SHADOW			SSN-802	10/22/1982		3/19/1985			N/A			8/22/2006
334	CANON			SSN-803	1/18/1965	6/27/1966	7/26/1967	7/26/1968	7/26/1968	8.5	9/31/1977		10/19/1984
335	BARRY			SSN-804	12/15/1952	3/15/1955	10/19/1955	7/19/1956	26.2	1/15/1982		1/15/1982	1/15/1982
336	NAUTILUS			SSN-805	12/19/1951	6/14/1952	12/19/1954	4/23/1955	3/19/1956	24.9	3/19/1980		3/19/1980
337	VLADETA	VLD		SSN-806	3/20/1955	2/19/1955	8/19/1956	6/19/1958	6/19/1958	12.3	8/19/1980		8/19/1980
338	CHAMBERLAIN	CHM		SSN-807	10/19/1964	3/16/1966	10/19/1966	10/19/1966	10/19/1966	23.9	10/19/1980		10/19/1980

We also added the current date to *DataTableOriginal_Dec 11* in cell D1 and the current day of the week in cell C1,² as shown in figure 5.

For ships no longer in the fleet. We calculated ship age for these ships based on available date information for each ship. Our preferred age calculation was for the time between the Delivery Date and the Decommission Date. If the Delivery Date was missing, we used the Commission Date instead. And if the Decommission Date was missing, we used the Inactivation Date.

For ships delivered or commissioned before 1900. Unfortunately, YEARFRAC() only works for dates on or after January 1, 1900. Quite a few ships in the database have Delivery and/or Commission Dates before 1900. For these cases, we modified a macro function available online from Microsoft Support named AgeFunc [27]. We named our modified version, AgeFuncFlt.

AgeFunc calculates the integer number of years between two dates. For our purposes, we wanted a floating point decimal result. You can find a listing of AgeFuncFlt in the Appendix.³

-
2. To determine the day of the week, we applied Excel's WEEKDAY() function to convert the date to the corresponding numerical day of the week. We then using Excel's VLOOKUP() function to determine the name of the day from the lookup table at the bottom of the DataTable-Original sheet :

	A	B
3189		
3190	Numeric Day of Week	Day
3191	1	Sunday
3192	2	Monday
3193	3	Tuesday
3194	4	Wednesday
3195	5	Thursday
3196	6	Friday
3197	7	Saturday

3. AgeFunc and AgeFuncFlt can be found as Modules 1 and 2, respectively, in the VBA project for this workbook. You can open the Microsoft Visual Basic for Applications window by clicking on the Visual Basic button on the Developer Tab or by using the keyboard shortcut: Alt+F11.

Figure 5. Day and date display in *DataTableOriginal_Dec11*

	A	B	C	D	E	F
1	Return to The Directory	Today is	Thursday	July 5, 2012		
2	Ship Name	Abbrev	Prefix	Hull No. (NVR Link)	NVR Type	UIC
3	NO NAME			AGS 66	AGS Surveying Ship	10544
4	NO NAME			DDG 114	DDG Guided Missile Destroyer	
5	NO NAME			DDG 115	DDG Guided Missile Destroyer	
6	MICHAEL MONSOOR			DDG 1001	DDG Guided Missile Destroyer	23189
7	MILWAUKEE			LCS 5	LCS Littoral Combat Ship	20134
8	JACKSON			LCS 6	LCS Littoral Combat Ship	20135
9	DETROIT			LCS 7	LCS Littoral Combat Ship	20136
10	MONTGOMERY			LCS 8	LCS Littoral Combat Ship	20137
11	JOHN P. MURTHA			LPD 26	LPD Amphibious Transport Dock	23182
12	NORTH DAKOTA			SSN 784	SSN Submarine (Nuclear-Powered)	20037
13	JOHN WARNER			SSN 785	SSN Submarine (Nuclear-Powered)	20038
14	NO NAME			SSN 786	SSN Submarine (Nuclear-Powered)	20181
15	NO NAME			SSN 787	SSN Submarine (Nuclear-Powered)	20182
16	NO NAME			SSN 788	SSN Submarine (Nuclear-Powered)	27150
17	NO NAME			SSN 789	SSN Submarine (Nuclear-Powered)	27151
18	NO NAME			SSN 790	SSN Submarine (Nuclear-Powered)	27152
19	NO NAME			SSN 791	SSN Submarine (Nuclear-Powered)	27153
20	FORTITUDE			JHSV 3	JHSV Joint High Speed Vessel	29786
21	FALL RIVER			JHSV 4	JHSV Joint High Speed Vessel	29787
22	RESOLUTE			JHSV 5	JHSV Joint High Speed Vessel	29788
23	NO NAME			JHSV 6	JHSV Joint High Speed Vessel	29789
24	COURAGEOUS			JHSV 7	JHSV Joint High Speed Vessel	29790
25	NO NAME			LPD 27	LPD Amphibious Transport Dock	3277A
26	HOWARD O. LORENZEN			AGM 25	AGM Missile Range Instrumentation Ship	10546
27	MEDGAR EVERS	MEV		AKE 13	AKE Dry Cargo and Ammunition Ship	29002
28	CESAR CHAVEZ			AKE 14	AKE Dry Cargo and Ammunition Ship	29003
29	GERALD R. FORD			CVN 78	CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)	23173
30	MICHAEL MURPHY			DDG 112	DDG Guided Missile Destroyer	55688
31	ZUMWALT			DDG 1000	DDG Guided Missile Destroyer	20121
32	FORT WORTH			LCS 3	LCS Littoral Combat Ship	20130
33	CORONADO			LCS 4	LCS Littoral Combat Ship	20131
34	AMERICA			LHA 6	LHA Amphibious Assault Ship (General Purpose)	20103
35	ANCHORAGE	ANC		LPD 23	LPD Amphibious Transport Dock	3015A
36	ARLINGTON	ARL		LPD 24	LPD Amphibious Transport Dock	23180
37	SOMERSET	SOM		LPD 25	LPD Amphibious Transport Dock	23181
38	MISSISSIPPI	MIS		SSN 782	SSN Submarine (Nuclear-Powered)	20080
39	MINNESOTA	MIN		SSN 783	SSN Submarine (Nuclear-Powered)	20034
40	CHOCTAW COUNTY			JHSV 2	JHSV Joint High Speed Vessel	29785
41	SPEARHEAD			JHSV 1	JHSV Joint High Speed Vessel	29784
42	CONSTITUTION		USS	"Old Ironsides"	Other	01024
43	PUEBLO		USS	AGER 2	AGER Environmental Research Ship	20256
44	BUNKER HILL	BKH	USS	CG 52	CG Guided Missile Cruiser	21345
45	MOBILE BAY	MOB	USS	CG 53	CG Guided Missile Cruiser	21346
46	ANTIETAM	ANT	USS	CG 54	CG Guided Missile Cruiser	21387
47	LEYTE GULF	LTG	USS	CG 55	CG Guided Missile Cruiser	21388
48	SAN JACINTO	SJA	USS	CG 56	CG Guided Missile Cruiser	21389
49	LAKE CHAMPLAIN	LKC	USS	CG 57	CG Guided Missile Cruiser	21428

Comment information moved

In the past, we inserted amplifying information in cell comments. To better manage and display these comments, we moved them into the Additional Comments, References field in column AF.

Changes in the data

Routine data update

Our routine changes in this update aligned the ISDB with the Naval Vessel Register (NVR) [28 and 29], the Military Sealift Command's (MSC's) Ship Inventory [30 and 31], and the Maritime Administration's (MARAD's) National Defense Reserve Fleet (NDRF) Inventory [32 and 33] as of Dec. 31, 2011.

Changes in ship forces and counts

Our counts of ships in the Navy's 5030.8A Battleforce and the NVR Ship Battle Forces at the end of the fourth quarter of 2011 are both 285 ships, or one more than at the end of the previous quarter. The Navy took delivery of PCU San Diego (LPD 22) on Dec. 19, 2011 [34]. These counts agree with the count of 285 Battle Force Ships reported in CNO OPNOTES [35, 36].

As there were no changes in the Navy's 5030.8A Non-Battleforce during the quarter, our count remained at 55 ships. We validated this count against the numbers in the most recent Ship Annual Supplemental Data Table (SASDT) [37].

Similarly, the count of the NVR Local Defense & Miscellaneous Support Forces at the end of the quarter remained at 113 ships. Since this count is no longer published independently, we could not validate our count. Nevertheless, if we deduct the ships not included in the 5030.8A Non-Battleforce, i.e.,

- 48 ships in the MARAD-titled Ready Reserve Fleet;
- Three AOT Transport Oilers no longer regarded as RRF units by MARAD, but still counted by NVR among its Strategic Sealift Forces, and
- Seven ships chartered by MSC's Prepositioning and Sealift Programs,

the remainder of 55 ships agrees with the validated 5030.8A Non-Battleforce count.

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ISDB overview and basic instructions

In this section, we present an overview of the Integrated Ship Database. We tell you where to find the database online and how to access it there. We show how the database file is organized into data tables and pivot tables. And we show how to use the various features of Microsoft Excel 2010 to view and analyze the data.

Accessing the database

You can access the ISDB via CNA's web site at www.cna.org (figure 6). If you go to "Solution Centers" page (figure 7) and then to the page of the "Operations & Tactics Analysis" Division of CNA's Center for Naval Analyses (figure 8), you will see the link to the Integrated Ship Database page (figure 9). The specific URL is www.cna.org/centers/operations-tactics/ship-database.

The ISDB page presents links to the database updates for the current year. It also has a link to the Database Archive where this update is posted. Figure 10 is a view of the Archive page.

Under the 2011 updates, you can see two links for the December 2011 files: one for the Microsoft Excel Macro-Enabled Worksheet version of this update, ([ISDB2011-12.xlsm](#) ); and one for the Microsoft Excel 97-2003 Worksheet version, ([ISDB2011-12.xls](#) ).

With the Macro-Enabled version, you can use either Microsoft Excel 2007 or Excel 2010 in their respective full Excel modes. Excel 2003 or earlier versions will not be able to open [ISDB2011-12.xlsm](#).

Excel 2003 will open the 97-2003 Worksheet version. Excel 2007 and Excel 2010 can open [ISDB2011-12.xls](#), but only in Compatibility Mode. Some features will not work in Compatibility Mode. If you have the 2007 or 2010 Excel versions, we recommend you use the Macro-Enabled Worksheet file.

Figure 6. The CNA web site (www.cna.org)



Figure 7. CNA's Solution Centers

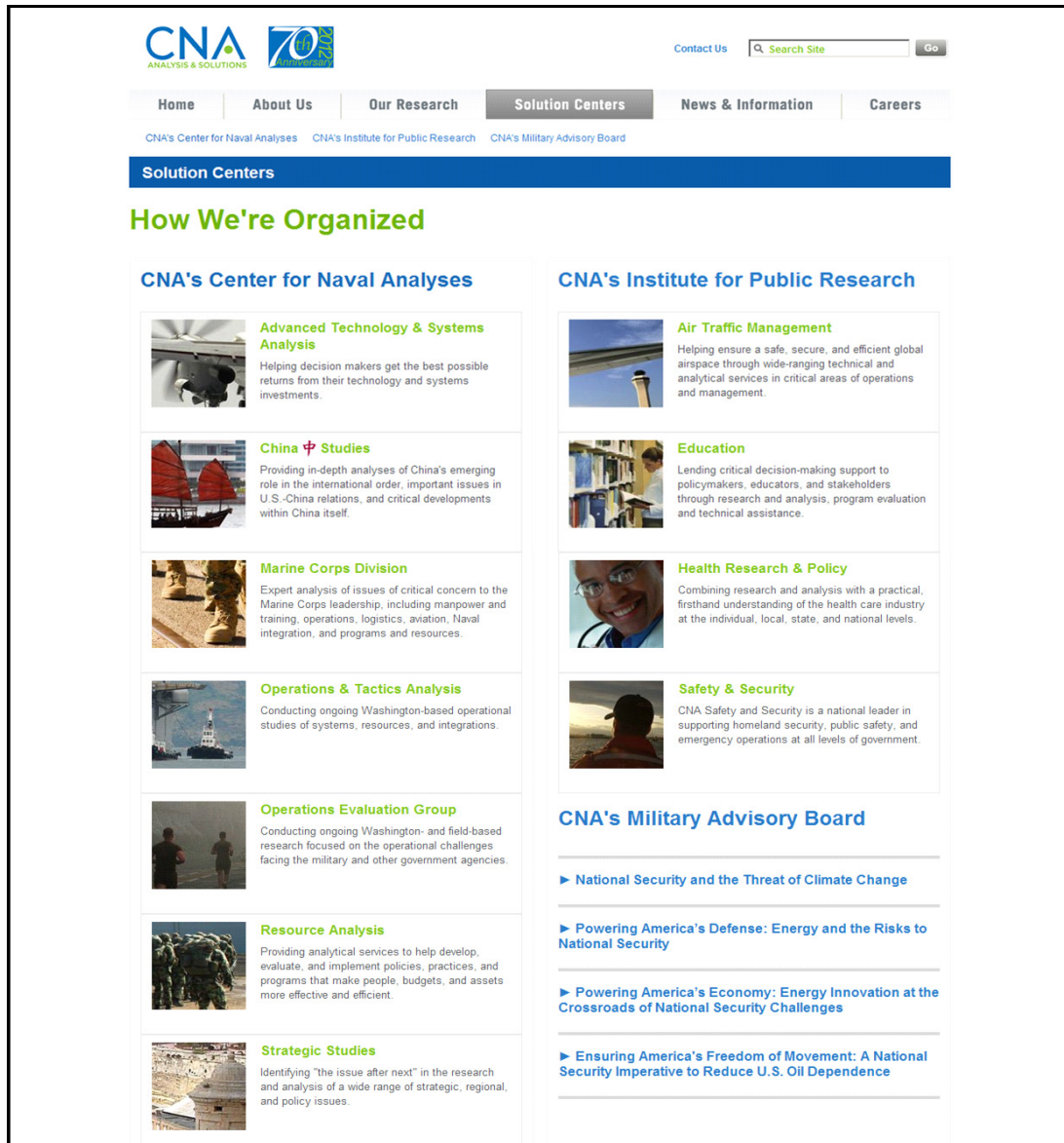


Figure 8. Operations & Tactics Analysis web page

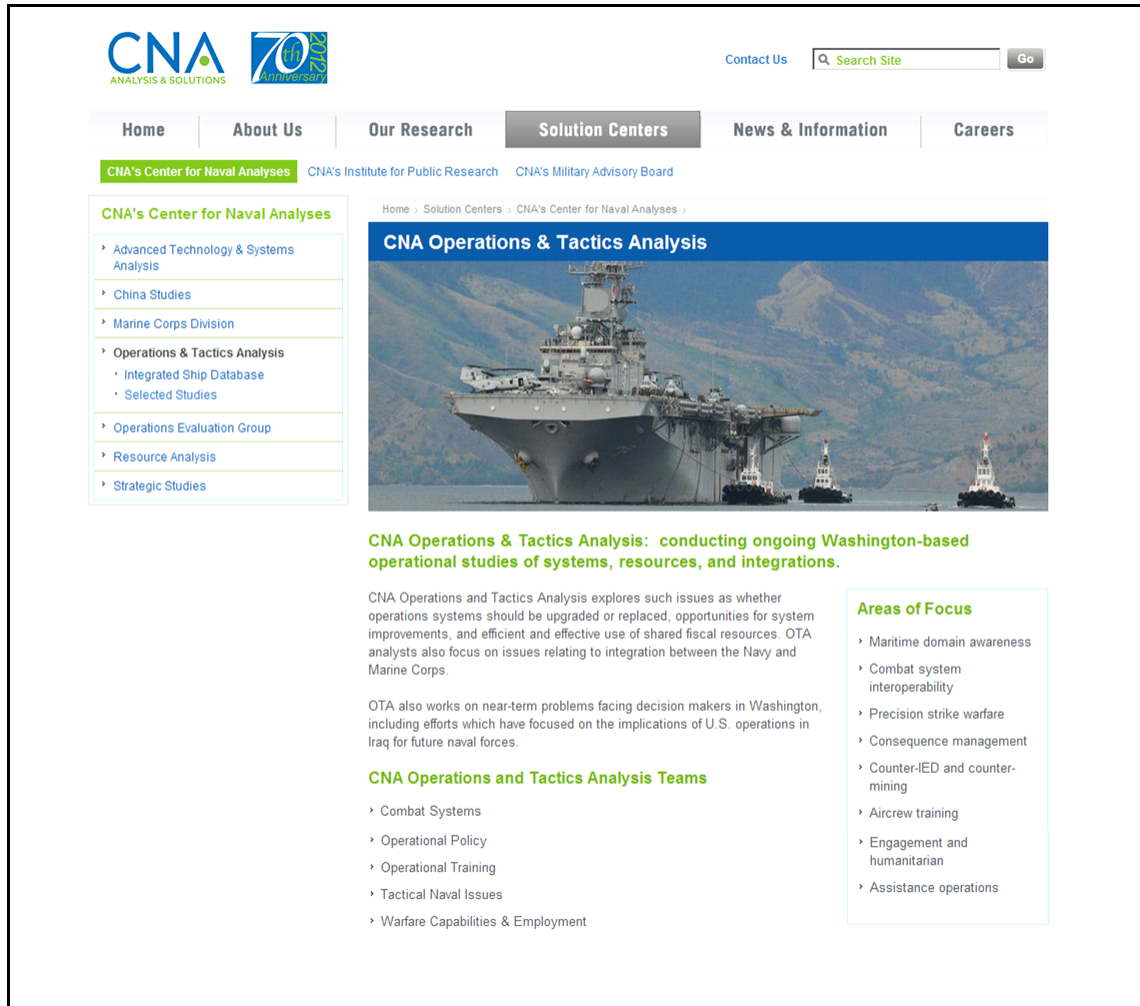



Figure 9. ISDB web page


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[CNA's Military Advisory Board](#)

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CNA's Integrated Ship Database



CNA's Integrated Ship Database, compiled from multiple, authorized U.S. Navy and U.S. Government sources, contains information on particular ships throughout the fleet's history.

Before using the database, please browse these [Basic Layout and Instructions](#). For further information on navigating the database, please consult the [User's Manual](#).

CNA's Integrated Ship Database was developed and is maintained by Sr. Research Scientist, Greg Suess, Ph.D., 703.824.2231; and Research Specialist III, Lynette McClain, 703.824.2855. If you have any questions, please contact us. We also welcome your thoughts and suggestions on improvements in this product.

CNA's Integrated Ship Database 2012

March 2012

- ISDB2012-03.xlsm  Excel Macro-Enabled Worksheet (For Excel 2007 and 2010)
- ISDB2012-03.xls  Excel 97-2003 Worksheet (For Excel 2003, Excel 2007 in Compatibility Mode, and Excel 2010 in Compatibility Mode)

Database Archive

- Click here to [view database updates](#) from 2005-2011

(This page was last updated on August 9, 2012)

Data Sources

- Naval Vessel Register**
Ray Curles 757.396.0913
- U.S. Navy Fact File**
Marie Tillery 202.433.0572
- Property Management and Archive Record System (PMARS)**
- Military Sealift Command Ship Inventory**
Tim O'Connell 202.685.5364
- Naval History and Heritage Command**
Dan Jones 202.433.6801

Figure 10. ISDB Database Archive web page









CNA's Integrated Ship Database

CNA's Integrated Ship Database, compiled from multiple, authorized U.S. Navy and U.S. Government sources, contains information on particular ships throughout the fleet's history. A cover memo outlining the changes that appear in each update accompanies each database posting.









Database Archive

(This page was last updated on August 9, 2012)









2011

- › December 2011
 - ISDB2011-12.xlsm  Excel Macro-Enabled Worksheet (For Excel 2007 and 2010)
 - ISDB2011-12.xls  Excel 97-2003 Worksheet (For Excel 2003, Excel 2007 in Compatibility Mode, and Excel 2010 in Compatibility Mode)
- › September 2011  and cover memo 
- › June 2011  and cover memo 
- › March 2011  and cover memo 









2010

- › December 2010  and cover memo 
- › September 2010  and cover memo 
- › June 2010  and cover memo 
- › March 2010  and cover memo 









2009

- › December 2009  and cover memo 
- › September 2009  and cover memo 
- › June 2009  and cover memo 
- › March 2009  and cover memo 









2008

- › December 2008  and cover memo 
- › September 2008  and cover memo 
- › June 2008  and cover memo 
- › March 2008  and cover memo 


2007

- › December 2007  and cover memo 
- › September 2007  and cover memo 
- › June 2007  and cover memo 
- › March 2007  and cover memo 

2006

- › December 2006  and cover memo 
- › September 2006  and cover memo 
- › June 2006  and cover memo 
- › March 2006  and cover memo 

2005

- › September 2005 

Data Sources

- › **Naval Vessel Register**
Ray Curles 757.396.0913
- › **U.S. Navy Fact File**
Marie Tillery 202.433.0572
- › **Property Management and Archive Record System (PMARS)**
- › **Military Sealift Command Ship Inventory**
Tim O'Connell 202.685.5364
- › **Naval History and Heritage Command**
Dan Jones 202.433.6801

Structure of the database file

When you first open the database file, you will see the cover of this document as in figure 1. It is the first worksheet, titled *The Document*. At the bottom of figure 1, you can see six of the ten worksheet tabs in the data file. The complete list includes:

- *The Document*
- *The Directory*
- Two data tables
 - *DataTableOriginal_Dec11*
 - *DataTableCopy*
- Six pivot tables
 - *Basic PivotTable*
 - *QuikLook_5030.8A Battleforce*
 - *QuikLook_5030.8A NonBattleforce*
 - *QuikLook_NVR Ship Battle Forces*
 - *QuikLook_NVRLocDef&?MiscSptForces*
 - *Ship-Age PivotTable*

The Document and The Directory worksheets

We introduced *The Document* and *The Directory* worksheets in the previous section. To avoid redundancy, we refer you to that discussion.

The data tables

DataTableOriginal_Dec11

Fields and records. Figure 11 shows the upper left corner of *DataTableOriginal_Dec11*. This sheet contains the entire ship database. It is a simple, traditional “flat file” type of database consisting of records (the rows) and fields (the columns).

Figure 11. The database — *DataTableOriginal_Dec11*

A		B	C	D	E	F	G
1	Return to The Directory	Today is	Thursday	July 5, 2012			
2	Ship Name	Abbrev	Prefix	Hull No. (NVR Link)	NVR Type	UIC	Status
3	NO NAME			AGS 66	AGS Surveying Ship	10544	Authorized, for US Navy construction
4	NO NAME			DDG 114	DDG Guided Missile Destroyer		Authorized, for US Navy construction
5	NO NAME			DDG 115	DDG Guided Missile Destroyer		Authorized, for US Navy construction
6	MICHAEL MONSOOR			DDG 1001	DDG Guided Missile Destroyer	23189	Authorized, for US Navy construction
7	MILWAUKEE			LCS 5	LCS Littoral Combat Ship	20134	Authorized, for US Navy construction
8	JACKSON			LCS 6	LCS Littoral Combat Ship	20135	Authorized, for US Navy construction
9	DETROIT			LCS 7	LCS Littoral Combat Ship	20136	Authorized, for US Navy construction
10	MONTGOMERY			LCS 8	LCS Littoral Combat Ship	20137	Authorized, for US Navy construction
11	JOHN P. MURTHA			LPD 26	LPD Amphibious Transport Dock	23182	Authorized, for US Navy construction
12	NORTH DAKOTA			SSN 784	SSN Submarine (Nuclear-Powered)	20037	Authorized, for US Navy construction
13	JOHN WARNER			SSN 785	SSN Submarine (Nuclear-Powered)	20038	Authorized, for US Navy construction
14	NO NAME			SSN 786	SSN Submarine (Nuclear-Powered)	20181	Authorized, for US Navy construction
15	NO NAME			SSN 787	SSN Submarine (Nuclear-Powered)	20182	Authorized, for US Navy construction
16	NO NAME			SSN 788	SSN Submarine (Nuclear-Powered)	27150	Authorized, for US Navy construction
17	NO NAME			SSN 789	SSN Submarine (Nuclear-Powered)	27151	Authorized, for US Navy construction
18	NO NAME			SSN 790	SSN Submarine (Nuclear-Powered)	27152	Authorized, for US Navy construction
19	NO NAME			SSN 791	SSN Submarine (Nuclear-Powered)	27153	Authorized, for US Navy construction
20	FORTITUDE			JHSV 3	JHSV Joint High Speed Vessel	29786	Authorized, for US Navy construction
21	FALL RIVER			JHSV 4	JHSV Joint High Speed Vessel	29787	Authorized, for US Navy construction
22	RESOLUTE			JHSV 5	JHSV Joint High Speed Vessel	29788	Authorized, for US Navy construction
23	NO NAME			JHSV 6	JHSV Joint High Speed Vessel	29789	Authorized, for construction
24	COURAGEOUS			JHSV 7	JHSV Joint High Speed Vessel	29790	Authorized, for construction
25	NO NAME			LPD 27	LPD Amphibious Transport Dock	3277A	Hull number assigned, authorized to be built, construction contract has not been aw
26	HOWARD Q. LORENZEN			AGM 25	AGM Missile Range Instrumentation Ship	10546	Under construction in US by Navy, unassigned to fleet
27	MEDGAR EYERS	MEY		AKE 12	AKE Dry Cargo and Ammunition Ship	29002	Under construction in US by Navy, unassigned to fleet
28	CESAR CHAVEZ			AKE 14	AKE Dry Cargo and Ammunition Ship	29003	Under construction in US by Navy, unassigned to fleet
29	GERALD R. FORD			CVN 78	CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)	23173	Under construction in US by Navy, unassigned to fleet
30	MICHAEL MURPHY			DDG 112	DDG Guided Missile Destroyer	55688	Under construction in US by Navy, unassigned to fleet
31	ZUMWALT			DDG 1000	DDG Guided Missile Destroyer	20121	Under construction in US by Navy, unassigned to fleet
32	FORT WORTH			LCS 3	LCS Littoral Combat Ship	20130	Under construction in US by Navy, unassigned to fleet
33	CORONADO			LCS 4	LCS Littoral Combat Ship	20131	Under construction in US by Navy, unassigned to fleet
34	AMERICA			LHA 6	LHA Amphibious Assault Ship (General Purpose)	20103	Under construction in US by Navy, unassigned to fleet
35	ANCHORAGE	ANC		LPD 23	LPD Amphibious Transport Dock	3015A	Under construction in US by Navy, unassigned to fleet
36	ARLINGTON	ARL		LPD 24	LPD Amphibious Transport Dock	23180	Under construction in US by Navy, unassigned to fleet
37	SOMERSET	SOM		LPD 25	LPD Amphibious Transport Dock	23181	Under construction in US by Navy, unassigned to fleet
38	MISSISSIPPI	MIS		SSN 782	SSN Submarine (Nuclear-Powered)	20080	Under construction in US by Navy, unassigned to fleet
39	MINNESOTA	MIN		SSN 783	SSN Submarine (Nuclear-Powered)	20034	Under construction in US by Navy, unassigned to fleet
40	CHOCTAW COUNTY			JHSV 2	JHSV Joint High Speed Vessel	29785	Under construction in US by Navy, unassigned to fleet
41	SPEARHEAD			JHSV 1	JHSV Joint High Speed Vessel	29784	Under construction in US for US Army, NAVSEA is the contracting activity
42	CONSTITUTION		USS	"Old Ironsides"	Other	01024	Active, in commission
43	PUEBLO		USS	AGER 2	AGER Environmental Research Ship	20256	Active, in commission
44	BUNKER HILL	BKH	USS	CG 52	CG Guided Missile Cruiser	21345	Active, in commission
45	MOBILE BAY	MOB	USS	CG 53	CG Guided Missile Cruiser	21346	Active, in commission
46	ANTIETAM	ANT	USS	CG 54	CG Guided Missile Cruiser	21387	Active, in commission
47	LEYTE GULF	LTG	USS	CG 55	CG Guided Missile Cruiser	21388	Active, in commission
48	SAN JACINTO	SJA	USS	CG 56	CG Guided Missile Cruiser	21389	Active, in commission
49	LAKE CHAMPLAIN	LKC	USS	CG 57	CG Guided Missile Cruiser	21428	Active, in commission
50	PHILIPPINE SEA	PSE	USS	CG 58	CG Guided Missile Cruiser	21429	Active, in commission
51	PRINCETON	PRN	USS	CG 59	CG Guided Missile Cruiser	21447	Active, in commission
52	NORMANDY	NOR, NMD	USS	CG 60	CG Guided Missile Cruiser	21448	Active, in commission
53	MONTEREY	MTY	USS	CG 61	CG Guided Missile Cruiser	21450	Active, in commission
54	CHANCELLORSVILLE	CHV	USS	CG 62	CG Guided Missile Cruiser	21451	Active, in commission
55	COVPENS	COW	USS	CG 63	CG Guided Missile Cruiser	21623	Active, in commission
56	GETTYSBURG	GTB, GET	USS	CG 64	CG Guided Missile Cruiser	21624	Active, in commission
57	CHOSIN	CHO	USS	CG 65	CG Guided Missile Cruiser	21625	Active, in commission

A record or row contains information about a particular ship unit. The specific information about the unit resides in the fields or columns. The fields in *DataTableOriginal_Dec11* are:

- Column A: Ship Name
- Column B: Abbreviation
- Column C: Prefix
- Column D: [Hull No. \(NVR Link\)](#)⁴
The links in this field are to the individual ship pages in the NVR. For example, figure 12 is the linked page for USS *George H W Bush* (CVN 77).
- Column E: NVR Type
- Column F: UIC
(i.e., Unit Identification Code)
- Column G: Status
- Column H: Date Status Changed
- Column I: [Class \(Navy Fact File Links\)](#)
These links go to the descriptive ship type and class information of the Navy Fact File on the Official Website of the Navy, *America's Navy*. Figure 13 shows the Fact File page for aircraft carriers.
- Column J: [NVR Force](#)
Links to the various Forces reported in the NVR, i.e., [Battle Forces](#), [Support Forces](#), [Auxiliary Ships](#), [Strategic Sealift Forces](#), [Mobilization Forces](#), [Category A Assets](#), and [Mobilization Forces](#), [Category B Assets](#).
- Column K: 5030.8A Force
- Column L: 5030.8A Ship Category
- Column M: 5030.8A Ship Classification
- Column N: 5030.8A Ship Type

4. In this list, we highlight fields containing hypertext links in the same font style as the cells in the database, i.e., by [blue, underlined text](#).

1

Figure 13. Navy Fact File page for aircraft carriers [39]

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United States Navy

Fact File

AIRCRAFT CARRIERS - CVN

Description

Aircraft carriers are the centerpiece of America's Naval forces. On any given day, aircraft carriers exercise the Navy core capabilities of power projection, forward presence, humanitarian assistance, deterrence, sea control and maritime security.

Features

The aircraft carrier continues to be the centerpiece of the forces necessary for forward presence. In times of crisis, the first question leaders ask in a crisis is: "Where are the carriers?" Often the presence of an aircraft carrier has deterred potential adversaries from striking against U.S. interests. Aircraft Carriers support and operate aircraft that engage in attacks on airborne, afloat and ashore targets that threaten free use of the sea, and engage in sustained power projection operations in support U.S. and coalition ground forces in Operation Enduring Freedom and Iraqi Freedom. The aircraft carrier and its strike group also engage in maritime security operations to interdict threats to merchant shipping and prevent the use of the seas as a highway for terrorist traffic. Aircraft also provide unique capabilities for disaster response and humanitarian assistance. The embarked carrier air wing provides helicopters for direct support and C4I assets to support them and ensure aid is routed quickly and safely. The 10 Nimitz class aircraft carriers are the largest warships in the world, each designed for an approximately 50 year service life with one mid-life refueling. USS Nimitz (CVN 68), USS Dwight D. Eisenhower (CVN 69), and USS Carl Vinson (CVN 70) have all completed their Refueling Complex Overhauls (RCOH) at Newport News, Va., with USS Theodore Roosevelt (CVN 71) commenced RCOH in 2009. The next generation of aircraft carrier, the Gerald R. Ford class (CVN 78) was ordered in 2008 and is slated to be delivered in 2015 to replace USS Enterprise (CVN 65).

Gerald R. Ford class

The Gerald R. Ford class is the future aircraft carrier replacement class for USS Enterprise and CVN 68, or Nimitz class aircraft carriers. Gerald R. Ford (CVN 78) was ordered from Newport News Shipbuilding on Sept. 10, 2008, and is scheduled to be delivered in 2015. The Gerald R. Ford class will be the premier forward asset for crisis response and early decisive striking power in a major combat operation. Gerald R. Ford class aircraft carriers and carrier strike groups will provide the core capabilities of forward presence, deterrence, sea control, power projection, maritime security and humanitarian assistance. The class brings improved warfighting capability, quality of life improvements for our Sailors and reduced acquisition and life cycle costs.

Each ship in the new class will save more than \$5 billion in total ownership costs during its 50-year service life, compared to the Nimitz-class. For comparison, the total ownership cost for a Nimitz-class ship is \$32.1 billion in FY 04 constant year dollars, and the total ownership cost for CVN 78 is expected to be \$26.8 billion. Half of the total ownership cost for an aircraft carrier is allocated to the direct and indirect costs of manpower for operations and maintenance of the ship. The CVN 78 is being designed to operate effectively with nearly 800 fewer crew members than a CVN 68-class ship. Improvements in the ship design will allow the embarked air wing to operate with 400 fewer personnel. Technologies and ship design initiatives that replace maintenance-intensive systems with low maintenance systems are expected to reduce watch standing and maintenance workload for the crew. Gerald R. Ford is the first aircraft carrier designed with all electric utilities, eliminating steam service lines from the ship, reducing maintenance requirements and improving corrosion control efforts. The new A1B reactor, Electromagnetic Aircraft Launch System (EMALS), Advanced Arresting Gear (AAG) and Dual Band Radar (DBR) all offer enhanced capability with reduced manning requirements. The Gerald R. Ford class is designed to maximize the striking power of the embarked carrier air wing. The ship's systems and configuration are optimized to maximize the sortie generation rate (SGR) of attached strike aircraft, resulting in a 25 percent increase in SGR over the Nimitz class. The ship's configuration and electrical generating plant are designed to accommodate any foreseeable requirements during its 50-year service life. The Gerald R. Ford class builds upon the Navy's legacy of aircraft carrier innovation stretching back to the first aircraft carrier, USS Langley (CV-1) and continuing to the present day. The introduction of jet aircraft, angled decks and nuclear power were all innovations that kept the fleet relevant for Cold War needs. Gerald R. Ford continues the aircraft carrier history of innovation and adaptability that will enable her to serve our country for decades to come.

Point Of Contact

Naval Sea Systems Command
Office of Corporate Communications
Washington, D.C. 20376

Click on photo to view larger or to download

Video: USS Dwight D. Eisenhower (CVN 69) underway in the Atlantic.

Printer Friendly View of Fact Sheet

SHARE [f](#) [t](#) [e](#)

Figure 13. Navy Fact File page for aircraft carriers [39] (continued)

General Characteristics, *Nimitz* class
Builder: Newport News Shipbuilding Co., Newport News, Va.
Date Deployed: May 3, 1975 (*USS Nimitz*).
Unit Cost: About \$4.5 billion each.
Propulsion: Two nuclear reactors, four shafts.
Length: 1,092 feet (332.85 meters).
Beam: 134 feet (40.84 meters); Flight Deck Width: 252 feet (76.8 meters).
Displacement: Approximately 97,000 tons (87,996.9 metric tons) full load.
Speed: 30+ knots (34.5+ miles per hour).
Crew: Ship's Company: 3,000-3,200, air wing: 1,500, other: 500.
Armament: Multiple NATO *Sea Sparrow*, *Phalanx* CIWS, and Rolling Airframe Missile (RAM) mounts.
Aircraft: Approximately 60+.

Ships:
USS Nimitz (CVN 68), Bremerton, Wash.
USS Dwight D. Eisenhower (CVN 69), Norfolk, Va.
USS Carl Vinson (CVN 70), San Diego, Calif.
USS Theodore Roosevelt (CVN 71), Norfolk, Va.
USS Abraham Lincoln (CVN 72), Everett, Wash.
USS George Washington (CVN 73), Yokosuka, Japan
USS John C. Stennis (CVN 74), Bremerton, Wash.
USS Harry S. Truman (CVN 75), Norfolk, Va.
USS Ronald Reagan (CVN 76), San Diego, Calif.
USS George H.W. Bush (CVN 77), Norfolk, Va.

General Characteristics, *Enterprise* class
Builder: Newport News Shipbuilding Co., Newport News, Va.
Date Deployed: November 25, 1961 (*USS Enterprise*).
Propulsion: Eight nuclear reactors, four shafts.
Length: 1,101 feet 2 inches (335.64 meters).
Beam: 133 feet (39.9 meters); 252 feet (75.6 meters).
Displacement: 89,600 tons (81,283.8 metric tons) full load.
Speed: 30+ knots (34.5 miles per hour).
Crew: Ship's Company: 3,350 - Air Wing 2,480.
Armament: Multiple NATO *Sea Sparrow*, *Phalanx* CIWS, and rolling Airframe Missile (RAM) mounts.
Aircraft: Approximately 60+.

Ships:
USS Enterprise (CVN 65), Norfolk, VA

General Characteristics, *Gerald R. Ford* class
Builder: Newport News Shipbuilding, Newport News, Va.
Propulsion: Two nuclear reactors, four shafts.
Length: 1,092 feet
Beam: 134 feet, Flight Deck Width: 256 feet.
Displacement: approximately 100,000 long tons full load.
Speed: 30+ knots (34.5 miles per hour)
Crew: 4,660 (ship, air wing and staff)
Armament: Evolved *Sea Sparrow* Missile, Rolling Airframe Missile, CIWS.
Aircraft: 75+.

Ships:
PCU Gerald R. Ford (CVN 78)
PCU John F. Kennedy (CVN 79)

Last Update: 6 January 2012



Home	About Status of the Navy Navy Organization Command Directory Our Ships Fact Files Today in Naval History FAQ	Leadership Secretary of the Navy Chief Of Naval Operations Master Chief Petty Officer Of The Navy Chief Of Naval Personnel Biographies SES Biographies Navy Command Tools	News	Media Video Gallery Radio Gallery Everyday In The Navy Photo Gallery Graphics Gallery Web Ad Gallery Print Ad Gallery Podcasts & RSS Feeds	Links Shift Colors-Navy Retiree Newsletter Affected Navy Family Assistance Navy / Marine Corps Relief Military One Source Navy Office of Community Outreach Naval History & Heritage Command Navy Personnel Command Navy Knowledge Online Pentagon Channel U.S. Army U.S. Air Force U.S. Marine Corps U.S. Coast Guard Navy Reserve Defense.gov Joint Chiefs of Staff	Careers	Contact Us
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Chief of Information

- Column O: [MSC Ship Link](#)
These links go to MSC's individual ship pages, such as that for USNS *Comfort* (T-AH 20) in figure 14.
- Column P: [MSC Type \(MSC Fact Sheet Link\)](#)
Links to MSC's Fact Sheets on the various ship types. Figure 15 shows the Fact Sheet for Hospital Ships.
- Column Q: [MARAD NDRE Program-Type / Status \(PMARS Link\)](#)
These inactive links were for MARAD's former Property Management & Archives System (PMARS) ship data pages. That system has been suspended pending replacement. We have retained the former links for the historical record.
- Column R: [DANFS Entry \(NHHC Link\)](#)
These links go to the Dictionary of American Naval Fighting Ships (DANFS) pages of the Naval History & Heritage Command (NHHC). Figure 16 shows the top portion of the DANFS page for USS *Enterprise* (CVN 65).
- Column S: [Ship History Report \(NHHC Link\)](#)
These links take you to the NHHC's index pages for ships with annual Ship History Reports. Figure 17 is the index page for USS *Enterprise* (CVN 65). Figure 18 shows a page from USS *Enterprise's* Command Operations Report for 2005.)
- Column T: [Homeport \(NVR Link\)](#)
These links take you to NVR's full list of ships in the respective homeports. See figure 19 for a sample list of ships homeported in Norfolk, VA.
- Column U: Previous, Other Names
- Column V: Award Date
- Column W: Keel Date
- Column X: Launch Date
- Column Y: Delivery Date

Figure 14. MSC Ship Inventory page for USNS *Comfort* (T-AH 20) [40]



Military Sealift Command
Ship Inventory

[Home](#)
[Latest News](#)
[MSC Overview](#)
[Commander](#)
[Organization](#)
[Ship Inventory](#)
[Employment](#)
[CIVMAR](#)
[Contracts](#)

USNS COMFORT (T-AH 20)

Hospital Ship



USNS Comfort is one of Military Sealift Command's two [Hospital Ships](#) and one of the 15 ships in Military Sealift Command's [Service Support Program](#).

- **Length:** 894 feet
- **Beam:** 106 feet
- **Draft:** 33 feet
- **Displacement:** 69,360 long tons
- **Speed:** 17.5 knots
- **Status:** [Reduced Operating Status \(5\)](#)
- **Civilian:** 18 ROS/65 FOS civil service mariners
- **Military:** 60 ROS/1,215 FOS
- **Government-Owned/Chartered:** Government-owned

Click on image at left for larger picture.

[USNS Comfort Fact Sheet](#)

[Return to ship inventory main page](#)
[Glossary of Terms](#)

This vessel is operated by the U.S. government and used only on non-commercial government service.


[View print version](#)

Last modified: June 23, 2010

Figure 15. MSC Fact Sheet for Hospital Ships [41]





 <div style="float: right;"> Military Sealift Command Fact Sheet </div>															
Home	Latest News	MSC Overview	Commander	Organization	Ship Inventory	Employment	CIVMAR	Contracts							
<div style="text-align: right;">  View print version </div>															
<div style="display: flex; justify-content: space-between;"> <div> <p>U.S. Navy's Military Sealift Command</p> <p>Fact Sheet</p> <p><i>Hospital Ships - T-AH</i></p> <p>Description: Two hospital ships owned and operated by Military Sealift Command provide emergency, on-site care for U.S. combatant forces deployed in war or other operations. The hospital ships' secondary mission is to provide full hospital services to support U.S. disaster relief and humanitarian operations worldwide</p> <p>Features: USNS Mercy (T-AH 19) and USNS Comfort (T-AH 20) each contain 12 fully-equipped operating rooms, a 1,000 bed hospital facility, digital radiological services, a medical laboratory, a pharmacy, an optometry lab, a CAT-scan and two oxygen producing plants. Each ship is equipped with a helicopter deck capable of landing large military helicopters. The ships also have side ports to take on patients at sea.</p> <p>Background: Both hospital ships are converted San Clemente-class super tankers. Mercy was delivered in 1986 and Comfort in 1987. Normally, the ships are kept in a reduced operating status in Baltimore, Md., and San Diego, Calif., by a small crew of civil service mariners and active duty Navy medical and support personnel. Each ship can be fully activated and crewed within five days.</p> <p>Point of contact: Public Affairs Office Military Sealift Command 914 Charles Morris Court SE Washington Navy Yard, D.C. 20398-5540 (202) 685-5055 or www.msc.navy.mil</p> <p>General Characteristics: Mercy Class Conversion: National Steel and Shipbuilding Co., San Diego, Calif. Power Plant: Two GE turbines; two boilers; 24,500 hp (18.3MW); one shaft Length: 894 feet (272.6 meters) Beam: 106 feet (32.2 meters) Displacement: 69,360 tons (70,473.10 metric tons) full load Speed: 17.5 knots (20.13 mph) Aircraft: Helicopter platform only Ships: No homeports assigned USNS Mercy (T-AH 19)* USNS Comfort (T-AH 20)** * In reduced operating status in San Diego when not activated **In reduced operating status in Baltimore when not activated</p> <p>Full Operating Status Crew: 68 civil service mariners and up to 1,215 Naval medical personnel Reduced Operating Status Crew: 18 civil service mariners and 58 Naval medical personnel</p> <p style="text-align: right;">Fact Sheet Index...</p> </div> <div> <p>August 2008</p> </div> </div>															
<table border="1" style="width: 100%;"> <tr> <td>Privacy Policy</td> <td>Accessibility</td> <td>Advanced Search</td> <td>Site Index</td> <td>Help</td> <td>FOIA</td> <td><input type="text"/></td> <td>Search</td> </tr> </table>								Privacy Policy	Accessibility	Advanced Search	Site Index	Help	FOIA	<input type="text"/>	Search
Privacy Policy	Accessibility	Advanced Search	Site Index	Help	FOIA	<input type="text"/>	Search								
<p>Military Sealift Command, ATTN: Public Affairs, 914 Charles Morris Ct. SE, Washington Navy Yard, DC, 20398-5540 CIVMAR support: 1-800-793-5784 • Marine Employment Opportunities: 1-877-JOBS-MSC (562-7672) • Email: webmaster@msc.navy.mil</p>															
<p><small>This is an Official U.S. Navy Web site and is the official web site of the Military Sealift Command. For more information on employment with the Navy, visit Navy Jobs. MSC reports to Fleet Forces Command and is one of three component commands reporting to the U.S. Transportation Command, known as USTRANSCOM.</small></p>															

Figure 16. Top portion of NHHC's DANFS page for USS *Enterprise* (CVN 65) [42]

[DANFS Index](#)  [Naval History & Heritage Command home](#)

DICTIONARY
of American
Naval Fighting Ships



DEPARTMENT OF THE NAVY -- NAVAL HISTORY & HERITAGE COMMAND

Enterprise

The eighth *Enterprise* (CVA(N)-65) was named in honor of the seventh *Enterprise* (CV-6) and her predecessor ships of that name.

VIII

(CVA(N)-65: displacement 85,600 tons (full load); length 1101'; beam 133'; extreme width 252'; draft 35'; speed 30+ knots; complement 4,600; class *Enterprise*)

Related Resource:

Video - [An Answer: JFK Visits the Atlantic Fleet \(1962\)](#)

History: 1961-1965

The eighth *Enterprise* (CVA(N)-65) - the world's first nuclear-powered aircraft carrier - was laid down on 4 February 1958 at Newport News, Va., by the Newport News Shipbuilding and Dry Dock Co.; launched on 24 September 1960; sponsored by Mrs. William B. Franke, wife of the Secretary of the Navy; and commissioned on 25 November 1961, Captain Vincent P. de Poix in command.

After commissioning, *Enterprise* began a lengthy series of tests and training exercises, designed to determine her full capabilities. Beginning six days of builder's and Navy pre-acceptance trials on 29 October 1961, she exceeded expectations, her reactors generating such horsepower that she "literally out-ran her destroyer escort."

Lieutenant Commander Oscar Folsom, Jr., Fleet Tactical Support Squadron (VRC)-40, became the first to fly from the ship's flight deck, transporting dignitaries, who had embarked to witness the sea trials, to shore in a Grumman C-1A *Trader*. *Enterprise* returned to port with a huge broom tied to her masthead, the traditional symbol of victory at sea, proclaiming a "clean sweep."


Enterprise went to sea for the first time as a commissioned ship for her shakedown cruise, on 12 January 1962, on that date also being announced as the flagship of Nuclear Task Force (TF) One. During this period she began fleet flight operations, when Commander George C. Talley, Jr., Commander Air Group (CAG), Carrier Air Group (CVG)-1 (Tail Code AB), made an arrested landing and catapult launch in an Ling Temco Vought F-8B *Crusader* (BuNo 145375) from Fighter Squadron (VF) 62 on 17 January.


After completing carrier qualifications (carquals), *Enterprise* was privileged to play a role in the space age, putting to sea for ten days as part of the Project *Mercury* Recovery Force off Bermuda. Three carriers, including *The Big E*, patrolled the most likely areas for reentry and impact of the capsule, but unforeseen delays postponed that second attempt to send a man into space and the ship returned to Norfolk.

The following weeks proved busy ones. On 5 February *Enterprise* sailed for the Caribbean and Guantánamo Bay, Cuba, for her shakedown with elements of CVG-1, including VF-62 (F-8Bs) and VF-102 (F-4Bs), Attack Squadron (VA)-15 (Douglas A-1H *Skyraiders*), VA-64 and VA-172 (McDonnell Douglas A-4C *Skyhawks*), Light Photographic Reconnaissance Squadron (VFP)-62 Detachment (Det) 60 (RF-8A *Crusaders*) and Carrier Airborne Early Warning Squadron (VAW)-12 Det 60 (Grumman E-1B *Tracers*) embarked.


In addition, en route to the Caribbean she paused at Mayport, Florida, to embark Heavy Attack Squadron (VAH)-7 (North American A-5A *Vigilantes*). On 15 February the ship logged her 1,000th

Figure 17. NHHC Command Operations/Ship History index page for USS *Enterprise* [43]

[NHHC home](#)  [Ships History Branch](#)



DEPARTMENT OF THE NAVY -- NAVAL HISTORICAL & HERITAGE COMMAND



Index for Histories/Command Operations Reports submitted by Enterprise (CVN 65):

Click on the year to view the history/command operation report.
Requires Adobe Acrobat

1958-1963	1976	1991
1962-1966	1977	1992
1963	1978	1993
1964	1979	1994
1965	1980	1995
1966	1981	1996
1967	1982	1997
1968	1983	1998
1969	1984	1999
1970	1985	2000 No report
1971	1986	2001
1972	1987	2002 Classified
1973	1988	2003
1974	1989	2004
1975	1990	2005

Figure 18. Sample from USS *Enterprise* Command Operations Report for 2005 [44]

UNCLASSIFIED

Subj: USS ENTERPRISE -- 2005 COMMAND OPERATIONS REPORT

OPERATIONS DEPARTMENT

Air Operations



This past year has been one of tremendous activity and accomplishment for the Air Operations function within Operations Department. Composed of three Branches: Carrier Air Traffic Control Center (CATCC), Air Operations (Air Ops), and Air Transfer Office (ATO), this function is manned by five officers, two chief petty officers, and 38 enlisted Sailors. The year brought us the completion of Extended Ship's Restricted Availability (ESRA) and returned Enterprise to a sea-going fighting machine!

The Air Operations function began the year in the midst of ESRA at the Northrup-Grumman Newport News shipyard located in Newport News, Va. Air Operations established and operated a substantial transportation team which transported nearly 775,000 sailors from the pier to satellite parking sites accumulating over 665,000 vehicle miles in a 13 month period. In early spring, the CATCC team traveled to Pensacola, Fla. for annual team training. During this intensive two week hands-on refresher training, the CATCC-65 team surpassed all established records for professionalism, safety and adherence to air traffic control doctrine and procedures. After the completion of practical refresher training, Air Operations' attention was focused on preparing for the upcoming Commander, Naval Air Forces, U.S. Atlantic Fleet Quality Assurance audit. After an exhaustive inspection encompassing training procedures and documentation, publications, manuals and records, as well as an assessment of CATCC-65 team culture, the inspection team unearthed zero discrepancies in Air Operations.

Enterprise set sail for sea trials in late summer. Following a successful shake-down of all systems and a brief in-port period, Enterprise was underway again for Flight Deck Certification and CATCC Certification. While underway, Air Operations was integral in Air Department's regaining Flight Deck Certification, along with CATCC regaining Case III flight operations certification. Furthermore, Air Operations' air traffic control equipment was re-certified, including the Precision Approach Landing System (PALS), TACAN, and Instrument Landing System (BULLSEYE). After another brief in-port period, Enterprise set sail for TSTA and FEP. Air Operations function again set records by controlling CVW-1 aircraft in over 2207 sorties, moving 82,600 pounds of mail, parts and cargo, and transporting 637 passengers in a three week period.

End of year awards saw CATCC 65 personnel recognized for their excellence with the selection of ACC Bradley Vassar as the Commander, Naval Air Forces, U. S. Atlantic Fleet Air Traffic Controller of the Year. Divisional personnel were also recognized for superior performance in the field of excellence by earning two Navy Commendation Medals, twelve Navy and Marine Corps Achievement Medals, five Flag Letter of Commendations, and numerous Sailor of the Quarter awards.

Figure 19. NVR's Homeport page for Norfolk, VA [45]

NAVAL VESSEL REGISTER

This information resides on a DOD interest computer.
Important [conditions](#), [restrictions](#), and [disclaimers](#) apply.


Homeport: NORFOLK, VA

Select a Hull

Class	Hull	Name
AFSB 15	AFSB 15	PONCE
CG 47	CG 55	LEYTE GULF
CG 47	CG 56	SAN JACINTO
CG 47	CG 60	NOBMANDE
CG 47	CG 61	MONTEREY
CG 47	CG 68	ANZIO
CG 47	CG 72	VELLA GULF
CVN 65	CVN 65	ENTERPRISE
CVN 68	CVN 68	DWIGHT D EISENHOWER
CVN 68	CVN 71	THEODORE ROOSEVELT
CVN 68	CVN 75	HARRY S TRUMAN
CVN 68	CVN 77	GEORGE H W BUSH
DDG 51	DDG 51	ARLEIGH BURKE
DDG 51	DDG 52	BARRY
DDG 51	DDG 55	STOUT
DDG 51	DDG 57	MITSCHER
DDG 51	DDG 58	LABOON
DDG 51	DDG 61	RAMAGE
DDG 51	DDG 66	GONZALEZ
DDG 51	DDG 67	COLE
DDG 51	DDG 71	ROSS
DDG 51	DDG 72	MAHAN
DDG 51	DDG 74	MCPAUL
DDG 51	DDG 75	DONALD COOK
DDG 51	DDG 78	PORTER
DDG 51	DDG 79	OSCAR AUSTIN
DDG 51	DDG 81	WINSTON S CHURCHILL
DDG 51	DDG 84	BULKELEY
DDG 51	DDG 87	WASON
DDG 51	DDG 94	NITZE
DDG 51	DDG 95	JAMES E WILLIAMS
DDG 51	DDG 96	RAINBRIDGE
DDG 51	DDG 98	FORREST SHERMAN
DDG 51	DDG 103	TRUXTON
DDG 51	DDG 107	GRAVELY
DDG 51	DDG 109	JASON DUNHAM
PFG 7	PFG 47	NICHOLAS
PFG 7	PFG 52	CARR
PFG 7	PFG 53	ELROD
PFG 7	PFG 59	KAUFFMAN
LHD 1	LHD 1	WASP
LHD 1	LHD 3	KEARSARGE
LHD 1	LHD 5	BATAAN
LHD 1	LHD 7	IWO JIMA
LPD 17	LPD 17	SAN ANTONIO
LPD 17	LPD 19	MESA VERDE
LPD 17	LPD 21	NEW YORK
SSN 688	SSN 714	NORFOLK
SSN 688	SSN 750	NEWPORT NEWS
SSN 688	SSN 753	ALBANY
SSN 688	SSN 756	SCRANTON
SSN 688	SSN 764	BOISE
SSN 688	SSN 765	MONTPELIER

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Norfolk Naval Shipyard
Code 284, Bldg 705
Portsmouth, VA 23709-6000
(757) 967-3464
(757) 967-2967 (FAX)

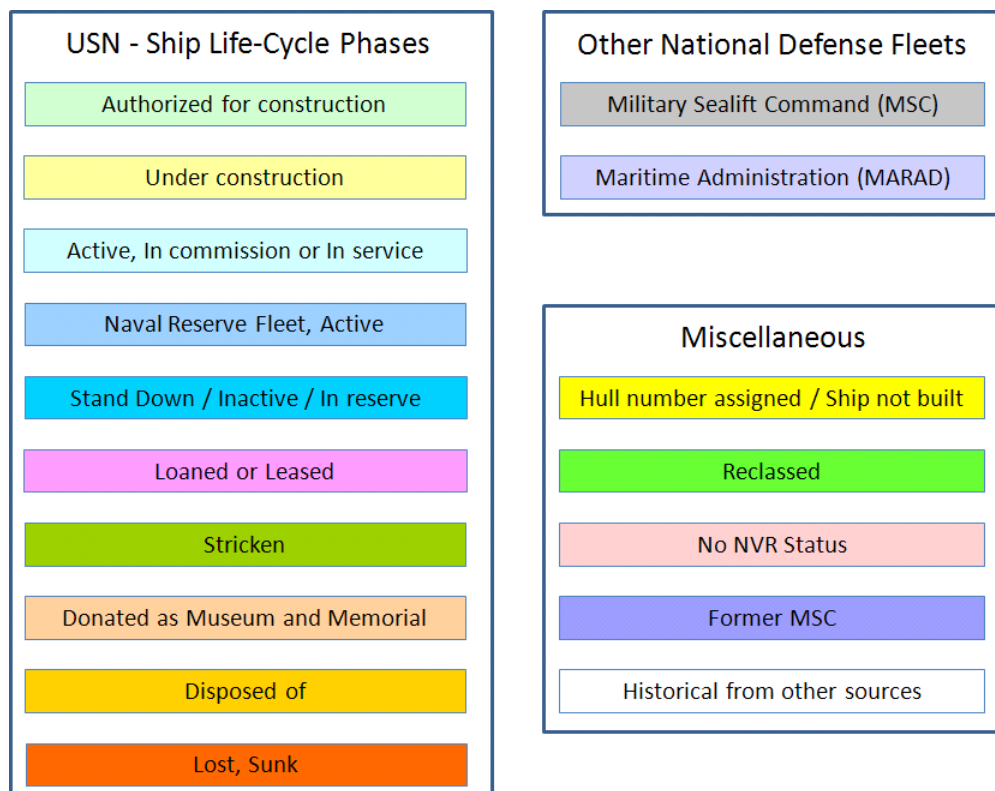


NSLC
MAIL
MASTER

- Column Z: Commission Date
- Column AA: Age
- Column AB: Decommission/OOA Date
- Column AC: Inactivation Date
- Column AD: Stricken Date
- Column AE: Date Last Updated
- Column AF: Additional Comments; References

Cell shading. We have shaded the worksheet to visually distinguish various sections. Figure 20 is a legend for the coloring scheme.

Figure 20. Legend for *DataTableOriginal_Dec11* color scheme



There are three sections in the figure. The section on the left represents the records of Navy ships distinguished by phases in the ship life cycle.

The group at the upper right of the figure represent the two organizations that contribute to the national defense and serve as custodians of NVR units, that is, MSC and MARAD.

The group at the lower right is a miscellaneous assortment:

- The upper three boxes in this group account for other records from the NVR.
 - The first subgroup is for units authorized for construction, assigned hull numbers, but never constructed.
 - The second subgroup includes records for units that were reclassified. These records show the original classification.
 - The third sub group has ship records that have not been assigned a status by NVR.
- The lower two subgroups include ship records derived from sources other than the NVR.
 - The first set includes former MSC ships recorded in MSC's Ship Inventory data.
 - The second set of records are for historical ship data come from other sources, specifically: the Navy Fact File; NHHC's DANFS; and MARAD's PMARS.

DataTableCopy

We protected *DataTableOriginal_Dec11* to preserve data integrity. You can use many of Excel's features in a protected worksheet, but you cannot use all of them (like the *Sort* function or toggling the *Autofilter* function on and off).

Consequently, we inserted a blank worksheet, named *DataTableCopy*, into which you can paste a copy of *DataTableOriginal_Dec11* and modify it without restriction. As an example, we sorted a copy of *DataTableOriginal_Dec11* by Ship Name. The result can be seen in figure 21.

Figure 21. The result of sorting by Ship Name — An example of data manipulation in *DataTableCopy*

	A	B	C	D	E	F	G
1	Return to The Directory	Today is	Thursday	July 5, 2012			
2	Ship Name	Abbrev	Prefix	Hull No. (NVR Link)	NVR Type	UIC	Status
3	1ST LT HARRY L. MARTIN	HLM	USNS	T-AK 305	T-AK Cargo Ship	23005	Military Sealift Command (MSC), in service, contract operated /P/
4	1ST LT JACK LUMMUS	JLS	USNS	T-AK 301	T-AK Cargo Ship	21633	Military Sealift Command (MSC), in service, contract operated /P/
5	1ST LT. ALEX BONNYMAN	ABN		AK 3003	AK Cargo Ship	21585	Disposed of by return to owner
6	1ST LT. BALDOMERO LOPEZ	BLE	USNS	T-AK 3010	T-AK Cargo Ship	21512	Military Sealift Command (MSC), in service, contract operated /P/
7	2ND LT. JOHN P. BOBO	JPB	USNS	T-AK 3008	T-AK Cargo Ship	21629	Military Sealift Command (MSC), in service, contract operated /P/
8	AIC WILLIAM H. PITSENBARGER	WHP		AK 4638	AK Cargo Ship	23518	Disposed of by return to owner
9	ABATAN			AV 4	AV Distilling Ship	04842	Disposed of in support of Fleet training exercise
10	ABBOT			DD 623	DD Destroyer	04029	Disposed of, by Navy sale
11	ABLE	ABL	USNS	T-AGOS 20	T-AGOS Ocean Surveillance Ship	21866	Military Sealift Command (MSC), Special Mission Support
12	ABNAKI			ATF 96	ATF Fleet Ocean Tug	07096	Disposed of through the Security Assistance Program (SAP), trans
13	ABRAHAM LINCOLN	ABE	USS	CVN 72	CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)	21237	Active, in commission
14	ABRAHAM LINCOLN			SSBN 602	SSBN Ballistic Missile Submarine (Nuclear-Powered)	05110	Disposed of by submarine recycling
15	ACADIA			AD 42	AD Destroyer Tender	21047	Disposed of in support of Fleet training exercise
16	ACCOCKEEK			ATA 181	ATA Auxiliary Ocean Tug	08108	Disposed of by transfer to other Government Agencies, States, Sol
17	ACHELOUS			APL 1	APL Repair Ship, Small	50010	Disposed of, by Navy sale
18	ACHOMAWI			ATF 143	ATF Fleet Ocean Tug		Disposed of, by Navy sale
19	ACME			MSO 508	MSO Minesweeper, Ocean	08156	Disposed of, by Navy sale
20	ACREE			DE 167	DE Escort Ship	02867	Disposed of, by Navy sale
21	ACUBENS			AKS 5	AKS Stores Issue Ship		Historical from PMARS, DANFS
22	ADMIRAL V. M. CALLAGHAN	V/MG		AKR 100	AKR Vehicle Cargo Ship	43365	Forces, (Sealift Program)
23	ADONIS						Former MARAD/INDRF, Scrap sale
24	ADRIA			AF 30	AF Store Ship	08615	Disposed of by MARAD sale
25	ADROIT			MSO 508	MSO Minesweeper, Ocean	08157	Disposed of, by Navy sale
26	ADVANCE			MSO 510	MSO Minesweeper, Ocean	08158	Disposed of, by Navy sale
27	ADVENTURER						MARAD/INDRF, Not reported in NVR
28	ADVENTUROUS			AGOS 12	AGOS Ocean Surveillance Ship	21576	Disposed of by transfer to other Government Agencies, States, Sol
29	AEGIR			AS 23	AS Submarine Tender		Historical from PMARS, DANFS
30	AEOLUS			ARC 3	ARC Cable Repairing Ship	01247	Disposed of by transfer to other Government Agencies, States, Sol
31	AFFRAY			MSO 511	MSO Minesweeper, Ocean	08159	Disposed of by scrapping, dismantling
32	AGAWAM			AOG 6	AOG Gasoline Tanker		Historical from PMARS, DANFS
33	AGENT						MARAD/INDRF, Not reported in NVR
34	AGERHOLM			DD 826	DD Destroyer	52126	Disposed of in support of Fleet training exercise
35	AGGRESSIVE			MSO 422	MSO Minesweeper, Ocean	07952	Disposed of, by Navy sale
36	AGILE			MSO 421	MSO Minesweeper, Ocean	07951	Disposed of, by Navy sale
37	AIDE						MARAD/INDRF, Not reported in NVR
38	AINSVORTH	AIN		FFT 1030	FFT Frigate (Reserve Training)	20068	Disposed of through the Security Assistance Program (SAP), trans
39	AJAX			AR 6	AR Repair Ship	08806	Disposed of, by Navy sale
40	ALABAMA	ALA, ALB	USS	SSBN 731	SSBN Ballistic Missile Submarine (Nuclear-Powered)	21041	Active, in commission
41	ALABAMA			BB 60	BB Battleship	03060	Donated as a Museum and Memorial
42	ALABAMA			BB 9	BB Battleship		Disposed of, sold for scrapping
43	ALACRITY			AG 520	AG Miscellaneous	08161	Disposed of, by Navy sale
44	ALAMANCE			AKA 75	AKA Attack Cargo Ship		Historical from PMARS, DANFS
45	ALAMO	ALM		LSD 32	LSD Dock Landing Ship	03133	Disposed of through the Security Assistance Program (SAP), trans
46	ALAN SHEPARD	SHE, ASD	USNS	T-AKE 3	T-AKE Dry Cargo and Ammunition Ship	23193	Military Sealift Command (MSC) Naval Fleet Auxiliary Force
47	ALASKA	AKA	USS	SSBN 732	SSBN Ballistic Missile Submarine (Nuclear-Powered)	21042	Active, in commission
48	ALATNA			AOG 81	AOG Gasoline Tanker	04781	Disposed of by Navy title transfer to the Maritime Administration
49	ALBACORE			AGSS 563	AGSS Auxiliary Research Submarine	05580	Donated as a Museum and Memorial
50	ALBANY	ALY	USS	SSN 753	SSN Submarine (Nuclear-Powered)	21462	Active, in commission
51	ALBANY			CG 10	CG Guided Missile Cruiser	03623	Disposed of, by Navy sale
52	ALBEMARLE			AV 5	AV Seaplane Tender		Historical from PMARS, DANFS
53	ALBERT DAVID			FF 1061	FF Frigate	54045	Disposed of through the Security Assistance Program (SAP), trans

The pivot tables

Microsoft Excel's pivot tables offer a way to filter, organize, apply calculations, and display information from a database. Furthermore, you can rapidly re-filter, reorganize, modify calculations, and re-display with pivot tables.

In this section, we describe the six pivot tables in the ISDB.

The *Basic Pivot Table*

The third worksheet in the database file is the *Basic PivotTable*. It provides a quick summary of the database contents. In figure 22, you see the opening view of *Basic PivotTable*. This compressed display shows the number of records in the database for the various Status Groups. These Groups include:

- For NVR ship records [46]
 - Authorized
 - Under Construction
 - Active
 - Naval Reserve Force, Active
 - Stand Down
 - Inactive
 - Leased
 - Loan
 - Stricken
 - Disposed
 - Special, Miscellaneous
 - Military Sealift Command, Naval Fleet Auxiliary Force
 - Military Sealift Command, Contract Operated
 - Military Sealift Command, Special Mission Support
 - Other NVR

Figure 22. Initial compressed view of *Basic PivotTable*

	A	B	C	D	E	F
1	Return To The Directory		FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES, CLICK HERE			
2						
3	Count of Ship Name					
4	Status Group	Status	NVR Type	Hull No. (NVR Link)	Ship Name	Total
5	⊕ Authorized					23
6	⊕ Under construction					16
7	⊕ Active					247
8	⊕ Naval Reserve Force, Active					10
9	⊕ Stand Down					6
10	⊕ Inactive					12
11	⊕ Leased					7
12	⊕ Loan					2
13	⊕ Stricken					105
14	⊕ Disposed					1,963
15	⊕ Special, Miscellaneous					58
16	⊕ Military Sealift Command, Naval Fleet Auxiliary Force					42
17	⊕ Military Sealift Command, Contract Operated					31
18	⊕ Military Sealift Command, Special Mission Support					23
19	⊕ Other NVR					52
20	⊕ Other, Not in NVR					582
21	Grand Total					3,179
22						
23						
24						

Navigation: The Directory / DataTableOriginal_Dec11 / DataTableCopy / **Basic PivotTable** / QuikLook_5030.8A Battleforce / QuikLook_5030.8A NonBattleforce / QuikLook_NVR Ship #1

- For ship records not in NVR
 - Other, Not in NVR

To expand the display and reveal the ship counts in the various Status Groups, follow the steps in figure 23:

1. Select cell A4, “Status Group,” and right-click to bring up the first drop-down menu.
2. Roll the cursor over the “Expand/Collapse” option in the first menu to display the second drop-down menu.
3. Left-click the “Expand” option.

Figure 24 shows the resulting expansion.

If you follow the same sequence of steps across “Status” and “NVR Type”, you can see the successive expansions in figures 25 and 26.

Figure 26 is the fully expanded view of the pivot table. In it, you can see the detailed ship names and hull numbers for units within the various ship status groupings.

Figure 23. How to expand Status Group in *Basic PivotTable*

The screenshot shows an Excel spreadsheet with a PivotTable. The PivotTable is structured with 'Status Group' as the row label, 'Status' as the column label, and 'NVR Type' as the filter. The 'Status' column is currently expanded, showing a list of ship statuses and their counts. A context menu is open over the 'Status Group' header, with the 'Expand/Collapse' option selected. The 'Expand' sub-menu is also open, showing options to expand the entire field or to specific columns: 'Status', 'NVR Type', 'Hull No.(NVR Link)', and 'Ship Name'.

Status Group	Status	NVR Type	Hull No. (NVR Link)	Ship Name	Total
Authorized					23
Under construction					16
Active					247
Naval Reserve Force					10
Stand Down					6
Inactive					12
Leased					7
Loan					2
Stricken					105
Disposed					1,963
Special, Miscellaneous					58
Military Sealift Comm					42
Military Sealift Comm					31
Military Sealift Comm					23
Other NVR					52
Other, Not in NVR					582
Grand Total					3,179

The context menu options are:

- Copy
- Format Cells...
- Refresh
- Sort
- Filter
- Subtotal "Status Group"
- Expand/Collapse
 - Expand
 - Collapse
 - Expand Entire Field
 - Collapse Entire Field
 - Collapse to "Status Group"
 - Expand to "Status"
 - Expand to "NVR Type"
 - Expand to "Hull No.(NVR Link)"
 - Expand to "Ship Name"
- Group...
- Ungroup...
- Move
- Remove "Status Group"
- Field Settings...
- PivotTable Options...
- Show Field List

Figure 24. View of *Basic PivotTable* with Status Group expanded

A		B		C		D	E	F	G
1	Return to The Directory			FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES, CLICK HERE					
2									
3	Count of Ship Name	Status	NVR Type	Hull No. (NVR Link)	Ship Name	Total			
4	Status Group								
8	Under construction	Under construction in US by Navy, unassigned to fleet				15			
9		Under construction in US for US Army, NAVSEA is the contracting activity				1			
10	Active	Active, in commission				241			
11		Active, In service				3			
12		Active, in commission / Military Sealift Command (MSC), Special Mission Support				3			
13	Naval Reserve Force, Active	Naval Reserve Force, Active				10			
14	Stand Down	In commission, in Reserve (Stand Down) commencement of inactivation availability				2			
15		Out of commission, in reserve				4			
16	Inactive	Inactive, Out of Commission, in reserve				9			
17		Inactive, out of service, in reserve				2			
18		Inactive, Out of Commission				1			
19	Leased	Leased (not SAP)				6			
20		SAP, Loaned or Leased				1			
21	Loan	Loaned (not SAP), loan was effective/renewed on date shown in "Status Date"				1			
22		Loaned indefinitely and carried in the Ship Donation Program as a Museum and Memorial				1			
23	Stricken	Stricken, available for donation as a museum and memorial				8			
24		Stricken, retained by Navy as museum				2			
25		Stricken, to be disposed of				27			
26		Stricken, to be disposed of by Navy sale				13			
27		Stricken, to be disposed of by recycling				3			
28		Stricken, to be disposed of by submarine recycling				17			
29		Stricken, to be disposed of, retain as logistics support asset				2			
30		Stricken, to be disposed of, retain as submarine moored training ship				2			
31		Stricken, to be disposed of by dismantling				12			
32		Stricken, to be disposed of by abandoning, sinking, or burning				1			
33		Stricken, to be disposed of in support of Fleet training exercise				1			
34		Stricken, to be disposed of, type of disposal not known				2			
35		Stricken, to be disposed of by transfer to government agencies, activities, foreign countries (not SAP), MARAD, Sea Scouts, etc				10			
36		Stricken, to be disposed of by the Security Assistance Program (SAP), for cash sale				2			
37		The Navy awarded a contract for the dismantling of this ship, but it is not characterized as disposed of until the contractor completes and certifies completion of the dismantling				2			
38		The Navy awarded a contract for the dismantling of this ship, but it is not characterized as disposed of until the contractor delivery order is completed and certifies completion of the dismantling				1			
39	Disposed	Dedicated as a Memorial				1			
40		Donated as a Museum and Memorial				35			
41		Disposed of by abandoning, burning, scuttling, or sinking				10			
42		Disposed of by Donation for use as Artificial Reefing				2			
43		Disposed of by MARAD exchange				64			
44		Disposed of by MARAD sale				99			
45		Disposed of by Navy title transfer				3			
46		Disposed of by Navy title transfer to the Maritime Administration				166			
47		Disposed of by Recycling				9			
48		Disposed of by return to owner				16			
49		Disposed of by scrapping, dismantling				139			
50		Disposed of by submarine recycling				103			
51		Disposed of by transfer to other Government Agencies, States, Schools, Sea Scouts, etc.				42			
52		Disposed of in support of Fleet training exercise				213			
53		Disposed of through the Security Assistance Program (SAP), Foreign Military Sale or Lease				21			
54		Disposed of through the Security Assistance Program (SAP), transferred, cash sale, ex-US fleet hull foreign military sale case number assigned				399			
55		Disposed of through the Security Assistance Program (SAP), transferred, Foreign Military Sale or Lease							

Figure 25. Top portion of *Basic PivotTable* with Status Group and Status expanded

	A	B	C	D	E	F
1	Return to The Directory		FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES, CLICK HERE			
2	Count of Ship Name	Status	MVR Type	Hull No. (NVR Link)	Ship Name	Total
3	Status Group					
4	Authorized	Authorized, for US Navy construction	AGS Surveying Ship			1
5			DDG Guided Missile Destroyer			3
6			LCS Littoral Combat Ship			4
7			LPD Amphibious Transport Dock			1
8			SSN Submarine (Nuclear-Powered)			8
9			JHSV Joint High Speed Vessel			3
10		Authorized, for US Navy construction Total				20
11		Authorized, for construction	JHSV Joint High Speed Vessel			2
12		Authorized, for construction Total				2
13		Hull number assigned, authorized to be built, construction contract has not been awarded	LPD Amphibious Transport Dock			1
14		Hull number assigned, authorized to be built, construction contract has not been awarded Total				1
15	Under construction	Under construction in US by Navy, unassigned to fleet	AGM Missile Range Instrumentation Ship			1
16			CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)			1
17			DDG Guided Missile Destroyer			2
18			LCS Littoral Combat Ship			2
19			LHA Amphibious Assault Ship (General Purpose)			1
20			LPD Amphibious Transport Dock			3
21			SSN Submarine (Nuclear-Powered)			2
22			JHSV Joint High Speed Vessel			1
23			AKE Dry Cargo and Ammunition Ship			2
24		Under construction in US by Navy, unassigned to fleet Total				15
25		Under construction in US for US Army, NAVSEA is the contracting activity	JHSV Joint High Speed Vessel			1
26		Under construction in US for US Army, NAVSEA is the contracting activity Total				1
27	Active	Active, in commission	AGER Environmental Research Ship			1
28			CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)			11
29			CG Guided Missile Cruiser			22
30			DDG Guided Missile Destroyer			61
31			FFG Guided Missile Frigate			16
32			LCC Amphibious Command Ship			1
33			LCS Littoral Combat Ship			2
34			LHA Amphibious Assault Ship (General Purpose)			1
35			LHD Amphibious Assault Ship (Multi-Purpose)			8
36			LPD Amphibious Transport Dock			7
37			LSD Dock Landing Ship			12
38			MCM Mine Countermeasures Ship			14
39			PC Patrol Coastal			13
40			SSBN Ballistic Missile Submarine (Nuclear-Powered)			14
41			SSGN Guided Missile Submarine (Nuclear-Powered)			4
42			SSN Submarine (Nuclear-Powered)			53
43			Other			1
44		Active, in commission Total				241
45		Active, in service	EDD Self Defense Test Ship			1
46			IX Unclassified Miscellaneous			1
47			LPD Amphibious Transport Dock			1
48		Active, in service Total				3
49		Active, in commission / Military Sealift Command (MSC), Special Mission Support	AS Submarine Tender			2
50			LCC Amphibious Command Ship			1
51		Active, in commission / Military Sealift Command (MSC), Special Mission Support Total				3
52	Naval Reserve Force, Active	Naval Reserve Force, Active	FFG Guided Missile Frigate			10
53		Naval Reserve Force, Active Total				10
54	Stand Down	In commission, in Reserve (Stand Down) commencement of inactivation availability	SSN Submarine (Nuclear-Powered)			2
55		In commission, in Reserve (Stand Down) commencement of inactivation availability Total				2

Figure 26. Top portion of *Basic PivotTable* fully expanded

	A	B	C	D	E	F	G
1	Return to The Directory		FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES, CLICK HERE				
2							
3	Count of Ship Name	Status	NVR Type	Hull No. (NVR Link)	Ship Name	Total	
4	Authorized	Authorized, for US Navy construction	AGS Surveying Ship	AGS 66	NO NAME	1	
5			AGS Surveying Ship Total			1	
6			DDG Guided Missile Destroyer	DDG 1001	MICHAEL MONSOOR	1	
7				DDG 114	NO NAME	1	
8				DDG 115	NO NAME	1	
9			DDG Guided Missile Destroyer Total			3	
10			LCS Littoral Combat Ship	LCS 5	MILWAUKEE	1	
11				LCS 6	JACKSON	1	
12				LCS 7	DETROIT	1	
13				LCS 8	MONTGOMERY	1	
14			LCS Littoral Combat Ship Total			4	
15			LPD Amphibious Transport Dock	LPD 26	JOHN P MURTHA	1	
16			LPD Amphibious Transport Dock Total			1	
17			SSN Submarine (Nuclear-Powered)	SSN 784	NORTH DAKOTA	1	
18				SSN 785	JOHN WARNER	1	
19				SSN 786	NO NAME	1	
20				SSN 787	NO NAME	1	
21				SSN 788	NO NAME	1	
22				SSN 789	NO NAME	1	
23				SSN 790	NO NAME	1	
24				SSN 791	NO NAME	1	
25			SSN Submarine (Nuclear-Powered) Total			8	
26			JHSV Joint High Speed Vessel	JHSV 3	FORTITUDE	1	
27				JHSV 4	FALL RIVER	1	
28				JHSV 5	RESOLUTE	1	
29			JHSV Joint High Speed Vessel Total			3	
30		Authorized, for US Navy construction Total				20	
31		Authorized, for construction	JHSV Joint High Speed Vessel	JHSV 6	NO NAME	1	
32				JHSV 7	COURAGEOUS	1	
33		JHSV Joint High Speed Vessel Total				2	
34		Authorized, for construction Total				2	
35		Hull number assigned, authorized to be built, construction contract has not been awarded	LPD Amphibious Transport Dock	LPD 27	NO NAME	1	
36			LPD Amphibious Transport Dock Total			1	
37		Hull number assigned, authorized to be built, construction contract has not been awarded Total				1	
38	Under construction	Under construction in US by Navy, unassigned to fleet	AGM Missile Range Instrumentation Ship	AGM 25	HOWARD O. LORENZEN	1	
39			AGM Missile Range Instrumentation Ship Total			1	
40			CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)	CYN 78	GERALD R. FORD	1	
41			CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion) Total			1	
42			DDG Guided Missile Destroyer	DDG 1000	ZUMWALT	1	
43				DDG 112	MICHAEL MURPHY	1	
44			DDG Guided Missile Destroyer Total			2	
45			LCS Littoral Combat Ship	LCS 3	FORT WORTH	1	
46				LCS 4	CORONADO	1	
47			LCS Littoral Combat Ship Total			2	
48			LHA Amphibious Assault Ship (General Purpose)	LHA 6	AMERICA	1	
49			LHA Amphibious Assault Ship (General Purpose) Total			1	
50			LPD Amphibious Transport Dock	LPD 23	ANCHORAGE	1	
51				LPD 24	ARLINGTON	1	
52				LPD 25	SOMERSET	1	
53			LPD Amphibious Transport Dock Total			3	
54			SSN Submarine (Nuclear-Powered)	SSN 782	MISSISSIPPI	1	
55				SSN 783	MINNESOTA	1	
56			SSN Submarine (Nuclear-Powered) Total			2	

The QuikLook pivot tables

As the name implies, these pivot tables are intended for quick, immediate display of fleet compositions and ship counts according to two standard classification and counting systems:

1. The system defined in SECNAV's 5030.8A Instruction on vessel classification and Battleforce ship counting [26], and
2. The system formerly used by NVR to classify ships into forces.⁵

SECNAVINST 5030.8A on Vessel Classification and Battleforce Ship Counting. In the last update [24], we modified the database to account for the system defined in the SECNAV Instruction 5030.8A.

Figure 27 illustrates the general organization of the 5030.8A system and also the specific example of the scheme applied to Navy surface combatants.

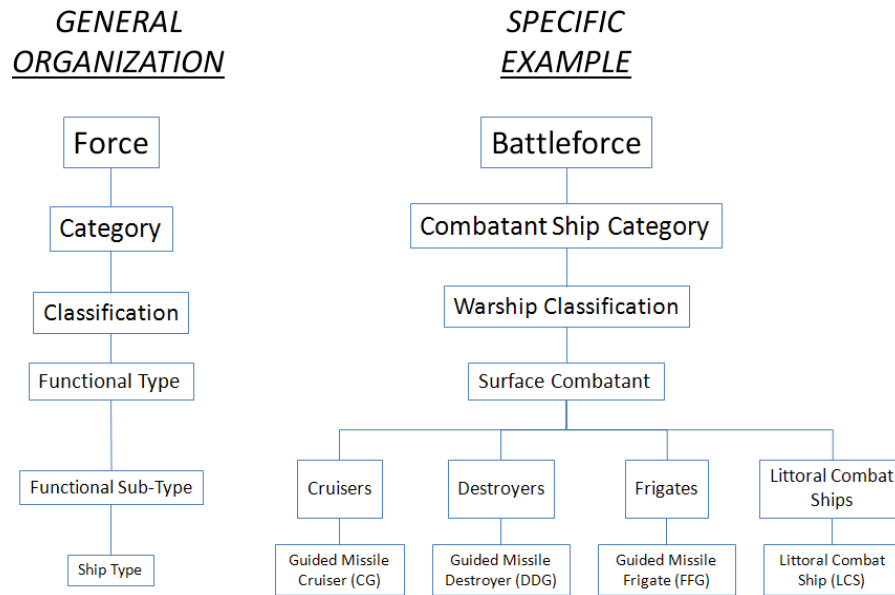
At the top level of organization, i.e. the Force level, 5030.8A identifies two Forces: Battleforce and Non-Battleforce. The instruction then specifies a sequence of increasing specificity down to the lowest level, that of ship-type.

The instruction explicitly defines "Categories" and "Classifications." In our example, The Category is the Combatant Ship Category and the Classification is the Warship Classification.

The 5030.8A instruction does not explicitly label the next two levels, So we refer to them as "Functional Type" and "Sub-Functional Type," respectively. In the example, Surface Combatant is the Functional Type. The Functional Sub-Types included, Cruisers, Destroyers, Frigates, and Littoral Combat Ships.

5. NVR is in transition from its former system to that of the SECNAV instruction. The current NVR system is actually a hybrid of the two systems.

Figure 27. General 5030.8A organization with an example



Specific Ship Types are Guided Missile Cruisers (CGs), Guided Missile Destroyers (DDGs), Guided Missile Frigates (FFGs), and Littoral Combat Ships (LCSs).

In figure 28, we show the composition of the Battleforce in terms of the 5030.8A ship categories, classifications, and types. Likewise, figure 29 shows the organization of the Non-Battleforce.

The colored boxes at the bottom of these figures indicate the respective custodians of the ships. Blue designates U.S. Navy. Gray depicts MSC. Green accounts for the ships under MSC custody, but crewed by hybrid of Navy military personnel and MSC civilians.

To accommodate the 5030.8A information, we added four fields:

- Column K: 5030.8A Force
- Column L: 5030.8A Ship Category
- Column M: 5030.8A Ship Classification
- Column N: 5030.8A Ship Type

Figure 28. Composition of the 5030.8A Battleforce

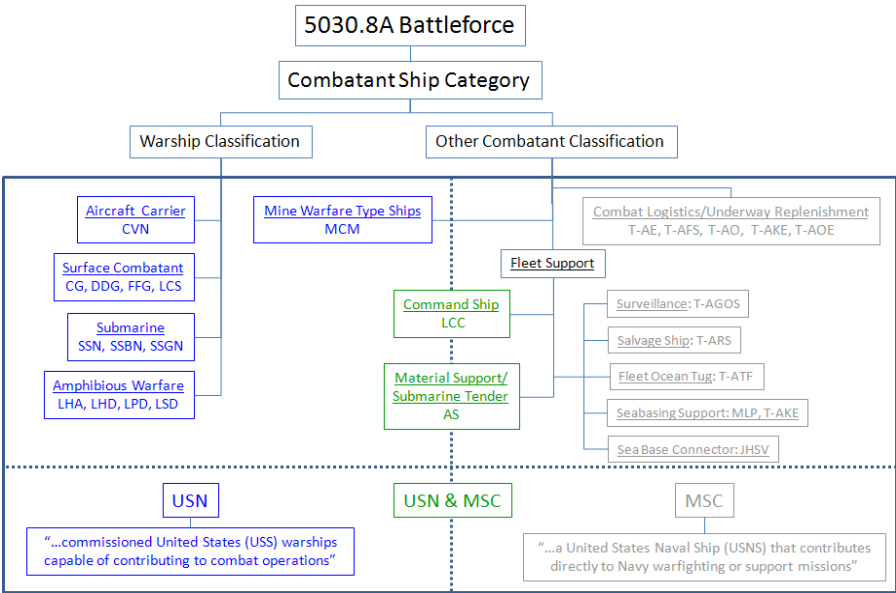
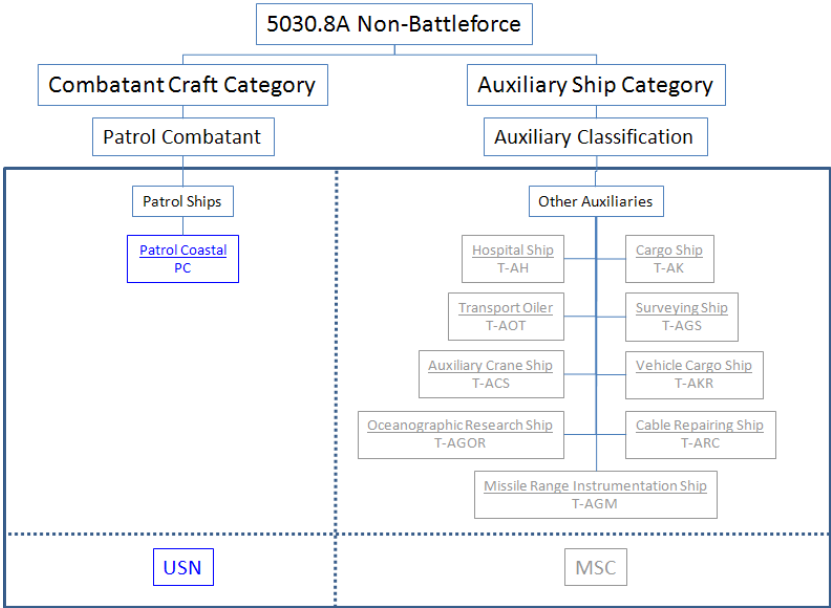


Figure 29. Composition of the 5030.8A Non-Battleforce



To populate these fields, we first used the SECNAV instruction as a guide. Then we confirmed our assignments using the Navy Ship Annual Supplemental Data Table (SASDT) in the President’s Budget submittal for Fiscal Year 2012 [47].

After populating the data worksheet, we built two QuikLook pivot tables : *QuikLook_5030.8A Battleforce* and *QuikLook_5030.8A NonBattleforce*.

Figure 30 shows the compressed display of *QuikLook_5030.8A Battleforce* available when the tab is first opened. You can see the total count of ships in the Battleforce, as well as the makeup by 5030.8A categories, classifications, and types.

Cell D1 contains a link to the NVR’s current count of the Ship Battle Forces for quick reference (See figure 31).



If you expand the entire 5030.8A Ship Category field in column A (using the same steps we discussed above for *Basic PivotTable*) and show individual ship names and hull numbers, you will see the complete composition of the Battleforce as in figure 32.

Figures 33 and 34 are similar views for the Non-Battleforce ships.

Figure 30. Initial view of *QuikLook_5030.8A Battleforce*

	A	B	C	D	E	F	G
1	Return to the Directory		FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES, CLICK HERE				
2							
3	Count of Ship Name						
4	5030.8A Force	5030.8A Ship Category	5030.8A Ship Classification	5030.8A Ship Type	Hull No.	Ship Name	Total
5	▢ Battleforce	▢ Combatant Ship	▢ Warship/Aircraft Carrier	▢ Conventional Take Off and Landing Aircraft Carriers/Multi-purpose Aircraft Carrier (nuclear-powered)			11
6			Warship/Aircraft Carrier Total				11
7			▢ Warship/Surface Combatant	▢ Cruisers/Guided Missile Cruiser			22
8				▢ Destroyers/Guided Missile Destroyer			61
9				▢ Frigates/Guided Missile Frigate			26
10				▢ Littoral Combat Ship/Littoral Combat Ship			2
11			Warship/Surface Combatant Total				111
12			▢ Warship/Submarine	▢ Attack Submarines/Submarine (nuclear-powered)			53
13				▢ Ballistic Missile Submarines/Ballistic Missile Submarine (nuclear-powered)			14
14				▢ Guided Missile Submarines/Guided Missile Submarine (nuclear-powered)			4
15			Warship/Submarine Total				71
16			▢ Warship/Amphibious Warfare	▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (general purpose)			1
17				▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (multi-purpose)			8
18				▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Transport Dock			8
19				▢ Landing Craft Carriers/Dock Landing Ship			12
20			Warship/Amphibious Warfare Total				29
21			▢ Other Combatant/Combat Logistics	▢ Underway Replenishment/Fast Combat Support Ship			4
22				▢ Underway Replenishment/Ammunition Ship			1
23				▢ Underway Replenishment/Dry Cargo and Ammunition Ship			12
24				▢ Underway Replenishment/Oiler			15
25			Other Combatant/Combat Logistics Total				32
26			▢ Other Combatant/Fleet Support	▢ Command/Command Ship			2
27				▢ Fleet Ocean Tugs/Fleet Ocean Tugs			4
28				▢ Material Support/Submarine Tender			2
29				▢ Salvage Ships/Salvage Ships			4
30				▢ Surveillance/Surveillance			5
31			Other Combatant/Fleet Support Total				17
32			▢ Other Combatant/Mine Warfare Type Ships	▢ Mine Countermeasures Ships/Mine Countermeasures Ship			14
33			Other Combatant/Mine Warfare Type Ships Total				14
34		Combatant Ship Total					285
35	Grand Total						285
36							
37							

Figure 31. NVR page on Ship Battle Forces composition

NAVAL VESSEL REGISTER

This information resides on a DOD interest computer.
Important [conditions, restrictions, and disclaimers](#) apply.

Ship Battle Forces - 285

[Aircraft Carriers](#)

Class	No. of Hulls
CVN 65	1
CVN 68	10

[Surface Combatants](#)

Class	No. of Hulls
CG 47	22
DDG 51	62
FFG 7	15
LCS	2

[Submarines](#)

Class	No. of Hulls
SSBN 726	14
SSGN 726	4
SSN 21	3
SSN 688	42
SSN 774	9

[Amphibious Warfare Ships](#)

Class	No. of Hulls
LHA 1	1
LHD 1	8
LPD 17	6
LPD 4	1
LSD 41	8
LSD 49	4

[Mine Warfare Ships](#)

Class	No. of Hulls
MCM 1	14

[Combat Logistics Ships](#)

Class	No. of Hulls
AE 26	1
AKE 1	13
AO 187	15
AOE 6	4

[Fleet Support](#)

Class	No. of Hulls
AFSB 15	1
AGOS 19	4
AGOS 23	1
ARS 50	4
AS 39	2
ATF 166	4
LCC 19	2
JHSV 1	0
MLP 1	0

[Naval Reserve Force, Active](#)

Class	No. of Hulls
FFG 7	8

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Figure 32. Top portion of the fully expanded view of *QuikLook_5030.8A Battleforce*

A		B		C		D		E		F		G
Return to The Directory						FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES. CLICK HERE						
1												
2												
3	Count of Ship Name											
4	5030.8A Force	5030.8A Ship Category	5030.8A Ship Classification	5030.8A Ship Type		Hull No.	Ship Name				Total	
5	Battleforce	Combatant Ship	Warship/Aircraft Carrier	Conventional Take Off and Landing Aircraft Carriers/Multi-purpose Aircraft Carrier (nuclear-powered)		CVN 65	ENTERPRISE				1	
6						CVN 68	NIMITZ				1	
7						CVN 69	DWIGHT D. EISENHOWER				1	
8						CVN 70	CARL VINSON				1	
9						CVN 71	THEODORE ROOSEVELT				1	
10						CVN 72	ABRAHAM LINCOLN				1	
11						CVN 73	GEORGE WASHINGTON				1	
12						CVN 74	JOHN C. STENNIS				1	
13						CVN 75	HARRY S. TRUMAN				1	
14						CVN 76	RONALD REAGAN				1	
15						CVN 77	GEORGE H. W. BUSH				1	
16				Conventional Take Off and Landing Aircraft Carriers/Multi-purpose Aircraft Carrier (nuclear-powered) Total							11	
17			Warship/Aircraft Carrier Total								11	
18			Warship/Surface Combatant	Cruisers/Guided Missile Cruiser		CG 52	BUNKER HILL				1	
19						CG 53	MOBILE BAY				1	
20						CG 54	ANTETAM				1	
21						CG 55	LEYTE GULF				1	
22						CG 56	SAN JACINTO				1	
23						CG 57	LAKE CHAMPLAIN				1	
24						CG 58	PHILIPPINE SEA				1	
25						CG 59	PRINCETON				1	
26						CG 60	NORMANDY				1	
27						CG 61	MONTEREY				1	
28						CG 62	CHANCELLORSVILLE				1	
29						CG 63	COVPENS				1	
30						CG 64	GETTYSBURG				1	
31						CG 65	CHOSIN				1	
32						CG 66	HUE CITY				1	
33						CG 67	SHILOH				1	
34						CG 68	ANZIO				1	
35						CG 69	VICKSBURG				1	
36						CG 70	LAKE ERIE				1	
37						CG 71	CAPE ST. GEORGE				1	
38						CG 72	VELLA GULF				1	
39						CG 73	PORT ROYAL				1	
40				Cruisers/Guided Missile Cruiser Total							22	
41				Destroyers/Guided Missile Destroyer		DDG 100	KIDD				1	
42						DDG 101	GRIDLEY				1	
43						DDG 102	SAMPSON				1	
44						DDG 103	TRUXTUN				1	
45						DDG 104	STERETT				1	
46						DDG 105	DEVEY				1	
47						DDG 106	STOCKDALE				1	
48						DDG 107	GRAVELY				1	
49						DDG 108	WAYNE E. MEYER				1	
50						DDG 109	JASON DUNHAM				1	
51						DDG 110	WILLIAM P. LAWRENCE				1	
52						DDG 111	SPRUANCE				1	
53						DDG 51	ARLEIGH BURKE				1	
54						DDG 52	BARRY				1	
55						DDG 53	JOHN PAUL JONES				1	
56						DDG 54	CURTIS WILBUR				1	
57						DDG 55	STOUT				1	
58						DDG 56	JOHN S. MCCAIN				1	

Figure 33. Compressed view of *QuikLook_5030.8A NonBattleforce*

	A	B	C	D	E	F	G
1	Return to The Directory						
2	Count of Ship Name						
3	5030.8A Force	5030.8A Ship Category	5030.8A Ship Classification	5030.8A Ship Type	Hull No.(NVR L	Ship Name	Total
4	Non-Battleforce	Combatant Craft	Patrol Combatant	Patrol Ships/Patrol Coastal			13
5		Combatant Craft Total					13
6		Auxiliary Ship	Auxiliary/Support Type Ship	Other Auxiliaries/Cable Repairing Ship			1
7				Other Auxiliaries/Cargo Ship			11
8				Other Auxiliaries/Hospital Ship			2
9				Other Auxiliaries/Missile Range Instrumentation Ship			1
10				Other Auxiliaries/Vehicle Cargo Ship			19
11				Other Auxiliaries/Transport Oiler			1
12				Other Auxiliaries/Surveying Ship			7
13		Auxiliary Ship Total					42
14	Grand Total						55
15							
16							
17							
18							
19							
20							

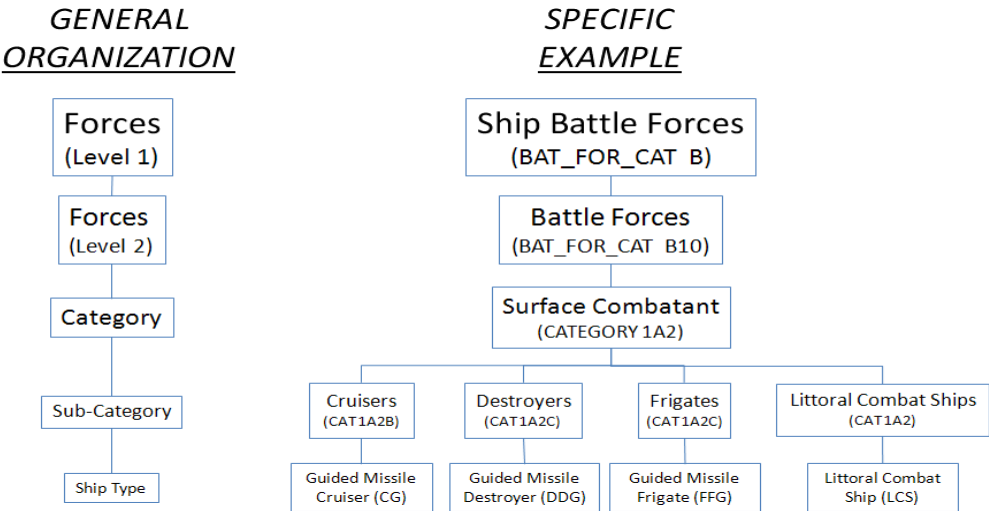
Figure 34. Expanded view of *QuikLook_5030.8A NonBattleforce*

	A	B	C	D	E	F	G
1	Return to The Directory						
2	Count of Ship Name						
3	5030.8A Force	5030.8A Ship Category	5030.8A Ship Classification	5030.8A Ship Type	Hull No.(NVR)	Ship Name	Total
4	Non-Battleforce	Combatant Craft	Patrol Combatant	Patrol Ships/Patrol Coastal	PC 2	TEMPEST	1
5					PC 3	HURRICANE	1
6					PC 4	MONSOON	1
7					PC 5	TYPHOON	1
8					PC 6	SIROCCO	1
9					PC 7	SQUALL	1
10					PC 8	ZEPHYR	1
11					PC 9	CHINOOK	1
12					PC 10	FIREBOLT	1
13					PC 11	WHIRLWIND	1
14					PC 12	THUNDERBOLT	1
15					PC 13	SHAMAL	1
16					PC 14	TORNADO	1
17				Patrol Ships/Patrol Coastal Total			13
18		Combatant Craft Total					13
19		Auxiliary Ship	Auxiliary/Support Type Ship	Other Auxiliaries/Cable Repairing Ship	T-ARC 7	ZEUS	1
20				Other Auxiliaries/Cable Repairing Ship Total			1
21				Other Auxiliaries/Cargo Ship	T-AK 3005	SGT MATEJ KOCAK	1
22					T-AK 3006	PFC EUGENE A. OREGON	1
23					T-AK 3007	MAJ. STEPHEN V. PLESS	1
24					T-AK 3008	2ND LT. JOHN P. BOBO	1
25					T-AK 3009	PFC DEWAYNE T. WILLIAMS	1
26					T-AK 3010	1ST LT. BALDOMERO LOPEZ	1
27					T-AK 3011	1ST LT. JACK LUMMUS	1
28					T-AK 3012	SGT WILLIAM R. BUTTON	1
29					T-AK 3015	1ST LT. HARRY L. MARTIN	1
30					T-AK 3016	LCPL ROY M. WHEAT	1
31					T-AK 3017	GYSGT FRED W. STOCKHAM	1
32				Other Auxiliaries/Cargo Ship Total			11
33				Other Auxiliaries/Hospital Ship	T-AH 19	MERCY	1
34					T-AH 20	COMFORT	1
35				Other Auxiliaries/Hospital Ship Total			2
36				Other Auxiliaries/Missile Range Instrumentation Ship	T-AGM 23	OBSERVATION ISLAND	1
37				Other Auxiliaries/Missile Range Instrumentation Ship Total			1
38				Other Auxiliaries/Vehicle Cargo Ship	T-AKR 295	SHUGHART	1
39					T-AKR 296	GORDON	1
40					T-AKR 297	YANO	1
41					T-AKR 298	GILLILAND	1
42					T-AKR 300	BOB HOPE	1
43					T-AKR 301	FISHER	1
44					T-AKR 302	SEAY	1
45					T-AKR 303	MENDONCA	1
46					T-AKR 304	PILILAU	1
47					T-AKR 305	BRITTIN	1
48					T-AKR 306	BENAVIDEZ	1
49					T-AKR 310	WATSON	1
50					T-AKR 311	SISLER	1
51					T-AKR 312	DAHL	1
52					T-AKR 313	RED CLOUD	1
53					T-AKR 314	CHARLTON	1
54					T-AKR 315	WATKINS	1
55					T-AKR 316	POMEROY	1
56					T-AKR 317	SODERMAN	1
57				Other Auxiliaries/Vehicle Cargo Ship Total			19
58				Other Auxiliaries/Transport Oiler	T-AOT 1125	LAWRENCE H. GIANELLA	1
59				Other Auxiliaries/Transport Oiler Total			1
60				Other Auxiliaries/Surveying Ship	T-AGS 45	WATERS	1
61					T-AGS 60	PATHFINDER	1
62					T-AGS 61	SUMNER	1
63					T-AGS 62	BOWDITCH	1
64					T-AGS 63	HENSON	1
65					T-AGS 64	BRUCE C. HEEZEN	1
66					T-AGS 65	MARY SEARS	1
67				Other Auxiliaries/Surveying Ship Total			7
68		Auxiliary Ship Total					42
69	Grand Total						55
70							

The Former NVR classification and counting system. The former NVR system of organization and counting is much like the system previously used in the Navy Budget. (For example, see [48].) In figure 35, we show the general scheme of organization. The term, “Forces,” is used at two different levels in this system. For the sake of distinguishing them, we label them as “Level 1” and “Level 2” respectively.

In figure 35, we present the case of surface combatants as a specific example. In the example here, we’ve annotated the boxes with the associated Battle Force Categories (BAT_FOR_CATs) and Budget Categories to show the linkages to the old budget system.

Figure 35. Former NVR system: General organization with an example



In figures 36 and 37, we show the composition of the two Level-1 Forces: the Ship Battle Forces, and the Local Defense and Miscellaneous Support Forces.

Figure 36. Composition of NVR Ship Battle Forces

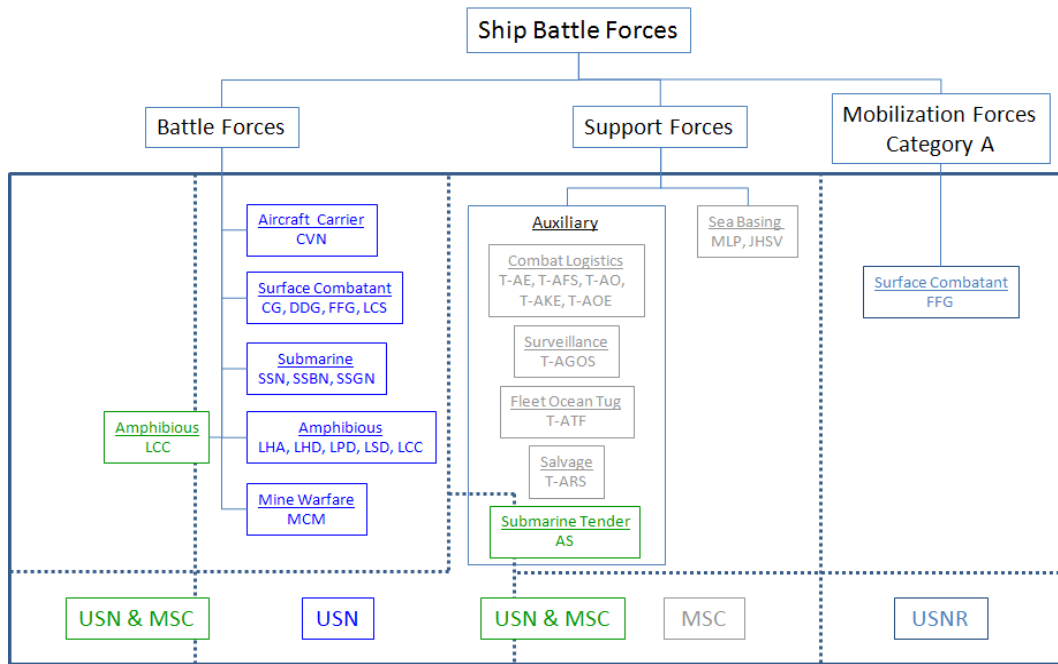
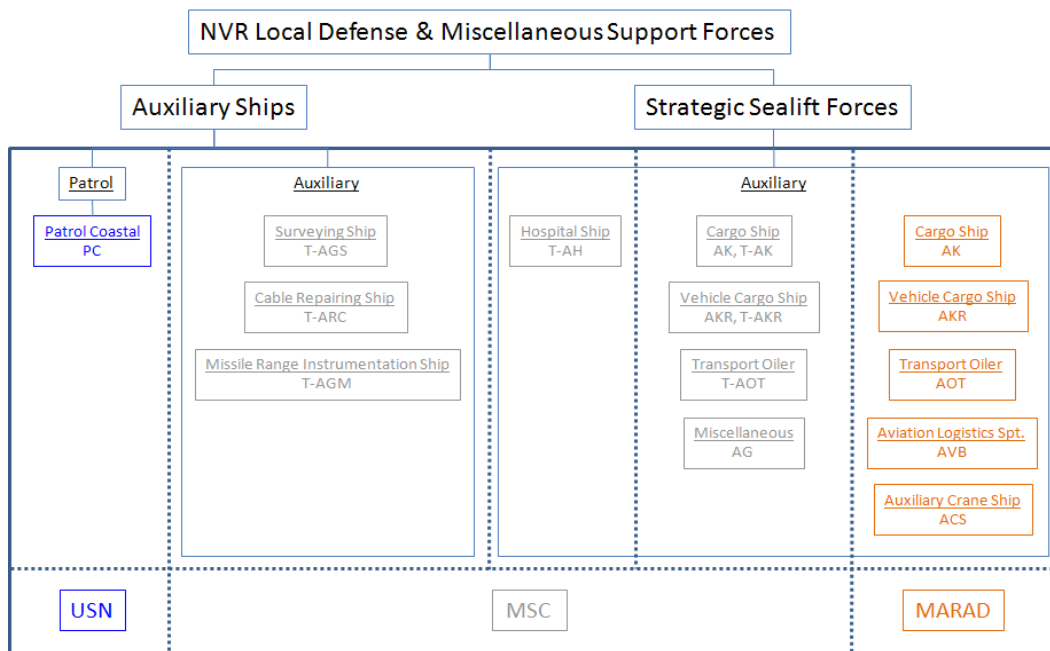


Figure 37. Composition of NVR Local Defense and Miscellaneous Support Forces



The two QuikLook pivot tables for the former NVR scheme of organization are:

- *QuikLook_NVR Ship Battle Forces*
- *QuikLook_NVRLocDef&MiscSptForces*

Figure 38 displays the initial, compressed view of *QuikLook_NVR Ship Battle Forces*. The grouping progresses from NVR Force – Level 2, through the NVR Status Categories and Status designations, the NVR Ship Type, to the individual Ship Names and Hull Numbers.

Figure 39 shows a fully expanded view that reveals the individual ships comprising the various levels of organization.

In like manner, figures 40 and 41 show the respective views of *Quiklook_NVRLocDef&MiscSptForces*.

Figure 38. Initial view of *QuikLook_NVR Ship Battle Forces*

A		B		C		D		E	F	G	H
Return to The Directory				FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES. CLICK HERE							
1											
2											
3	Count of Ship Name	Status Group	Status	NVR Type	Hull No. (NVR Link)	Ship Name	Total				
4	NVR Force										
5	▢ Battle Force	▢ Active	▢ Active, in commission	▢ CYN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)			11				
6				▢ CG Guided Missile Cruiser			22				
7				▢ DDG Guided Missile Destroyer			61				
8				▢ FFG Guided Missile Frigate			16				
9				▢ LCC Amphibious Command Ship			1				
10				▢ LCS Littoral Combat Ship			2				
11				▢ LHA Amphibious Assault Ship (General Purpose)			1				
12				▢ LHD Amphibious Assault Ship (Multi-Purpose)			8				
13				▢ LPD Amphibious Transport Dock			7				
14				▢ LSD Dock Landing Ship			12				
15				▢ MCM Mine Countermeasures Ship			14				
16				▢ SSBN Ballistic Missile Submarine (Nuclear-Powered)			14				
17				▢ SSGN Guided Missile Submarine (Nuclear-Powered)			4				
18				▢ SSN Submarine (Nuclear-Powered)			53				
19			Active, in commission Total				226				
20			▢ Active, in service				1				
21			Active, in service Total				1				
22			▢ Active, in commission / Military Sealift Command (MSC), Special Mission Support				1				
23			Active, in commission / Military Sealift Command (MSC), Special Mission Support Total				1				
24		▢ Military Sealift Command, Naval Fleet Auxiliary Force	▢ Military Sealift Command (MSC) Naval Fleet Auxiliary Force	▢ T-AE Ammunition Ship			1				
25				▢ T-AO Oiler			16				
26				▢ T-AOE Fast Combat Support Ship			4				
27				▢ T-AKE Dry Cargo and Ammunition Ship			11				
28			Military Sealift Command (MSC) Naval Fleet Auxiliary Force Total				31				
29			▢ Military Sealift Command (MSC), In Service/Naval Fleet Auxiliary Force				1				
30			Military Sealift Command (MSC), In Service/Naval Fleet Auxiliary Force Total				1				
31	▢ Mobilization Cat. A	▢ Naval Reserve Force, Active	▢ Naval Reserve Force, Active	▢ FFG Guided Missile Frigate			10				
32			Naval Reserve Force, Active Total				10				
33	▢ Support Force	▢ Active	▢ Active, in commission / Military Sealift Command (MSC), Special Mission Support	▢ AS Submarine Tender			2				
34			Active, in commission / Military Sealift Command (MSC), Special Mission Support Total				2				
35		▢ Military Sealift Command, Naval Fleet Auxiliary Force	▢ Military Sealift Command (MSC) Naval Fleet Auxiliary Force	▢ T-ARS Salvage Ship			4				
36				▢ T-ATF Fleet Ocean Tug			4				
37			Military Sealift Command (MSC) Naval Fleet Auxiliary Force Total				8				
38			▢ Military Sealift Command (MSC), Special Mission Support	▢ T-AGOS Ocean Surveillance Ship			5				
39		▢ Military Sealift Command, Special Mission Support	Military Sealift Command (MSC), Special Mission Support Total				5				
40	Grand Total						286				
41											
42											
43											

Figure 39. Top portion of the fully expanded view of *QuikLook_NVR Ship Battle Forces*

A		B		C		D	E	F	G
Return to The Directory				FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES. CLICK HERE					
1									
2									
3	Count of Ship Name								
4	NVR Force	Status Group	Status	NVR Type	Hull No. (NVR Link)	Ship Name	Total		
5	Battle Force	Active	Active, in commission	CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)	CVN 65	ENTERPRISE	1		
6					CVN 68	NIMITZ	1		
7					CVN 69	DWIGHT D. EISENHOWER	1		
8					CVN 70	CARL VINSON	1		
9					CVN 71	THEODORE ROOSEVELT	1		
10					CVN 72	ABRAHAM LINCOLN	1		
11					CVN 73	GEORGE WASHINGTON	1		
12					CVN 74	JOHN C. STENNIS	1		
13					CVN 75	HARRY S. TRUMAN	1		
14					CVN 76	RONALD REAGAN	1		
15					CVN 77	GEORGE H. W. BUSH	1		
16					CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)		11		
17					Total				
18				CG Guided Missile Cruiser	CG 52	BUNKER HILL	1		
19					CG 53	MOBILE BAY	1		
20					CG 54	ANTIETAM	1		
21					CG 55	LEYTE GULF	1		
22					CG 56	SAN JACINTO	1		
23					CG 57	LAKE CHAMPLAIN	1		
24					CG 58	PHILIPPINE SEA	1		
25					CG 59	PRINCETON	1		
26					CG 60	NORMANDY	1		
27					CG 61	MONTEREY	1		
28					CG 62	CHANCELLORSVILLE	1		
29					CG 63	COWPENS	1		
30					CG 64	GETTYSBURG	1		
31					CG 65	CHOSIN	1		
32					CG 66	HUE CITY	1		
33					CG 67	SHILOH	1		
34					CG 68	ANZIO	1		
35					CG 69	VICKSBURG	1		
36					CG 70	LAKE ERIE	1		
37					CG 71	CAPE ST. GEORGE	1		
38					CG 72	VELLA GULF	1		
39					CG 73	PORT ROYAL	1		
40				CG Guided Missile Cruiser Total			22		
41				DDG Guided Missile Destroyer	DDG 100	KIDD	1		
42					DDG 101	GRIDLEY	1		
43					DDG 102	SAMPSON	1		
44					DDG 103	TRUXTON	1		
45					DDG 104	STERETT	1		
46					DDG 105	DEWEY	1		
47					DDG 106	STOCKDALE	1		
48					DDG 107	GRAVELY	1		
49					DDG 108	WAYNE E. MEYER	1		
50					DDG 109	JASON DUNHAM	1		
51					DDG 110	WILLIAM P. LAWRENCE	1		
52					DDG 111	SPRUANCE	1		
53					DDG 51	ARLEIGH BURKE	1		
54					DDG 52	BARRY	1		
55					DDG 53	JOHN PAUL JONES	1		
56					DDG 54	CURTIS WILBUR	1		
57					DDG 55	STOUT	1		
58					DDG 56	JOHN S. MCCAIN	1		
59					DDG 57	MITSCHER	1		
60					DDG 58	LABOON	1		
61					DDG 59	RUSSELL	1		
62					DDG 60	PAUL HAMILTON	1		
63					DDG 61	RAMAGE	1		
64					DDG 62	FITZGERALD	1		
65					DDG 63	STETHEM	1		
66					DDG 64	CARNEY	1		
67					DDG 65	BENFOLD	1		

Figure 41. Top portion of the fully expanded *QuikLook_NVRLocDef&MiscSptForces*

A		B	C	D	E	F	G
1	Return to The Directory						
2							
3	Count of Ship Name						
4	NVR Force	Status Group	Status	NVR Type	Hull No. (NVR Link)	Ship Name	Total
5	⊖ Auxiliary	⊖ Active	⊖ Active, in commission	⊖ PC Patrol Coastal	⊖ PC 10	FIREBOLT	1
6					⊖ PC 11	WHIRLWIND	1
7					⊖ PC 12	THUNDERBOLT	1
8					⊖ PC 13	SHAMAL	1
9					⊖ PC 14	TORNADO	1
10					⊖ PC 2	TEMPEST	1
11					⊖ PC 3	HURRICANE	1
12					⊖ PC 4	HURRICANE	1
13					⊖ PC 5	TYPHOON	1
14					⊖ PC 6	SIROCCO	1
15					⊖ PC 7	SQUALL	1
16					⊖ PC 8	ZEPHYR	1
17					⊖ PC 9	CHINOOK	1
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Ship-Age PivotTable

In the section on “Changes in this update,” we discussed the addition of the *Ship-Age PivotTable* and the associated changes in *DataTableOriginal_Dec11* including the methodologies for calculating ship age. We will not repeat that presentation here.

Instead, we focus on the information presented in the pivot table. In figure 42, we show the opening view of *Ship-Age PivotTable*. The table shows age statistics according to the organizing scheme of the 5030.8A Instruction. Specifically, you can see the statistics down to the grouping of 5030.8A Ship Type.

The fields in the Data section of the table include four statistics

- *Count of Age*, i.e., the number of ships in the group
- *Average of Age* for ships in the group
- *Max of Age*, i.e., the age of the oldest ship in the group
- *Min of Age*, i.e., the age of the newest ship in the group

In figure 43, we show the top portion of the fully expanded *Ship-Age Table*. This view shows the individual ships in the group along with their respective dates of commission. Subtotals for the groups are shown as well.

So for example, there are 11 Navy aircraft carriers currently in the Battleforce. They are 24.1 years old on average. The oldest is USS *Enterprise* (CVN 65) at 50.7 years. And the newest is USS *George H.W. Bush* (CVN 77) at 3.2 years.

Figure 42. Initial view of *Ship-Age PivotTable*

	A	B	C	D	E	F	G	H	I	J	K	
1	Return to The Directory											
2												
3												
4	5030.8A Force	5030.8A Ship Category	5030.8A Ship Classification	5030.8A Ship Type	Hull No. (NVR Link)	Ship Name	Commission Date	Data	Count of Age	Average of Age	Max of Age	Min of Age
5	▢ Battleforce	▢ Combatant Ship	▢ Warship/Aircraft Carrier	▢ Conventional Take Off and Landing Aircraft Carriers/Multi-purpose Aircraft Carrier (nuclear-powered)					11	24.1	50.7	3.2
6			Warship/Aircraft Carrier Total						11	24.1	50.7	3.2
7			▢ Warship/Surface Combatant	▢ Cruisers/Guided Missile Cruiser					22	22.2	26.0	18.2
8				▢ Destroyers/Guided Missile Destroyer					61	11.5	21.2	1.2
9				▢ Frigates/Guided Missile Frigate					26	27.8	30.4	23.0
10				▢ Littoral Combat Ship/Littoral Combat Ship					2	3.2	3.8	2.6
11			Warship/Surface Combatant Total						111	17.3	30.4	1.2
12			▢ Warship/Submarine	▢ Attack Submarines/Submarine (nuclear-powered)					53	19.9	31.4	0.9
13				▢ Ballistic Missile Submarines/Ballistic Missile Submarine (nuclear-powered)					14	21.6	27.8	14.9
14				▢ Guided Missile Submarines/Guided Missile Submarine (nuclear-powered)					4	29.6	30.7	28.5
15			Warship/Submarine Total						71	20.8	31.4	0.9
16			▢ Warship/Amphibious Warfare	▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (general purpose)					1	32.3	32.3	32.3
17				▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (multi-purpose)					8	15.4	23.2	3.2
18				▢ Amphibious Helicopter and Landing Craft Carriers/Amphibious Transport Dock					8	13.7	43.7	0.6
19				▢ Landing Craft Carriers/Dock Landing Ship					12	21.1	27.5	14.4
20			Warship/Amphibious Warfare Total						29	17.9	43.7	0.6
21			▢ Other Combatant/Combat Logistics	▢ Underway Replenishment/Dry Cargo and Ammunition Ship					12	3.5	6.1	0.8
22				▢ Underway Replenishment/Fast Combat Support Ship					4	16.9	18.4	14.3
23				▢ Underway Replenishment/Ammunition Ship					1	40.6	40.6	40.6
24				▢ Underway Replenishment/Oiler					15	20.9	25.6	16.2
25			Other Combatant/Combat Logistics Total						32	14.5	40.6	0.8
26			▢ Other Combatant/Fleet Support	▢ Command/Command Ship					2	41.5	41.6	41.4
27				▢ Material Support/Submarine Tender					2	33.1	33.4	32.8
28				▢ Salvage Ships/Salvage Ships					4	26.4	26.9	25.8
29				▢ Fleet Ocean Tugs/Fleet Ocean Tugs					4	31.6	32.1	31.0
30				▢ Surveillance/Surveillance					5	18.2	20.9	11.7
31			Other Combatant/Fleet Support Total						17	27.8	41.6	11.7
32			▢ Other Combatant/Mine Warfare Type Ships	▢ Mine Countermeasures Ships/Mine Countermeasures Ship					14	20.9	24.9	18.0
33			Other Combatant/Mine Warfare Type Ships Total						14	20.9	24.9	18.0
34		Combatant Ship Total							285	19.0	50.7	0.6
35	Grand Total								285	19.0	50.7	0.6
36												
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Figure 43. Top portion of the fully expanded view of *Ship-Age Pivot Table*

A		B		C		D		E		F		G		H		I		J		K	
Return to The Directory																					

Appendix

Listing of the Visual Basic code for the macro, AgeFuncFlt

' This is the initial function. It takes in a start date and an end date.
Public Function AgeFuncFlt(stdate As Variant, endate As Variant)

' Dim our variables.
Dim stvar As String
Dim stmon As String
Dim stday As String
Dim styr As String
Dim endvar As String
Dim endmon As String
Dim endday As String
Dim endyr As String
Dim stmonf As Integer
Dim stdayf As Integer
Dim styrf As Integer
Dim styrflt As Single
Dim endmonf As Integer
Dim enddayf As Integer
Dim endyrf As Integer
Dim endyrflt As Single
Dim years As Single
Dim yearsflt As Single

' This variable will be used to modify string length.
Dim fx As Integer
fx = 0

' Calls custom function sfunc which runs the Search worksheet function
' and returns the results.
' Searches for the first "/" sign in the start date.
stvar = sfunc("/", stdate)

' Parse the month and day from the start date.

stmon = Left(stdate, sfunc("/", stdate) - 1)

stday = Mid(stdate, stvar + 1, sfunc("/", stdate, sfunc("/", stdate) + 1) - stvar - 1)

' Check the length of the day and month strings and modify the string

' length variable.

If Len(stday) = 1 Then fx = fx + 1

If Len(stmon) = 2 Then fx = fx + 1

' Parse the year, using information from the string length variable.

styr = Right(stdate, Len(stdate) - (sfunc("/", stdate) + 1) - stvar + fx)

' Change the text values we obtained to integers for calculation

' purposes.

stmonf = CInt(stmon)

stdayf = CInt(stday)

styrf = CInt(styr)

styrflt = styrf + stmonf / 12 + stdayf / 365.25

' Check for valid date entries.

If stmonf < 1 Or stmonf > 12 Or stdayf < 1 Or stdayf > 31 Or styrf < 1 Then

 AgeFuncFlt = "Invalid Date"

 Exit Function

End If

' Reset the string length variable.

fx = 0

' Parse the first "/" sign from the end date.

endvar = sfunc("/", endate)

' Parse the month and day from the end date.

endmon = Left(endate, sfunc("/", endate) - 1)

endday = Mid(endate, endvar + 1, sfunc("/", endate, sfunc("/", endate) + 1) - endvar - 1)


```
' Check the length of the day and month strings and modify the string
' length variable.
If Len(endday) = 1 Then fx = fx + 1
If Len(endmon) = 2 Then fx = fx + 1

' Parse the year, using information from the string length variable.
endyr = Right(endate, Len(endate) - (Sfunc("/", endate) + 1) - endvar + fx)

' Change the text values we obtained to integers for calculation
' purposes.
endmonf = CInt(endmon)
enddayf = CInt(endday)
endyrf = CInt(endyr)
endyrflt = endyrf + endmonf / 12 + enddayf / 365.25

' Check for valid date entries.
If endmonf < 1 Or endmonf > 12 Or enddayf < 1 Or enddayf > 31 Or endyrf < 1 Then
    AgeFuncFlt = "Invalid Date"
    Exit Function
End If

' Determine the initial number of years by subtracting the first and
' second year.
years = endyrflt - styrf

' Look at the month and day values to make sure a full year has passed.
' If stmonf > endmonf Then
'     years = years - 1
'End If

'If stmonf = endmonf And stdayf > enddayf Then
'     years = years - 1
'End If
```

```
' Make sure that we are not returning a negative number and, if not,  
' return the years.  
If years < 0 Then  
    AgeFuncFlt = "Invalid Date"  
Else  
    AgeFuncFlt = years  
End If
```

End Function

```
' This is a second function that the first will call.  
' It runs the Search worksheet function with arguments passed from AgeFunc.  
' It is used so that the code is easier to read.  
Public Function sfunc(x As Variant, y As Variant, Optional z As Variant)  
    sfunc = Application.WorksheetFunction.Search(x, y, z)  
End Function
```

Glossary

ACS	Auxiliary Crane Ship
AG	Miscellaneous Auxiliary
AOT/T-AOT	Transport Oiler
AS	Submarine Tender
AVB	Aviation Logistic Support Ship
BAT_FOR_CAT	Battle Force Category
CG	Guided Missile Cruiser
CVN	Multi-purpose Aircraft Carrier (Nuclear-Propulsion)
DANFS	Dictionary of American Naval Fighting Ships
DDG	Guided Missile Destroyer
FFG	Guided Missile Frigate
ISDB	Integrated Ship Database
FOS	Full Operating Status
LCC	Amphibious Command Ship
LCS	Littoral Combat Ship
LHA	Amphibious Assault Ship (General Purpose)
LHD	Amphibious Assault Ship (Multi-Purpose)
LPD	Amphibious Transport Dock
LSD	Dock Landing Ship
MARAD	Maritime Administration (U.S. Department of Transportation)
MCM	Mine Countermeasures Ship
MLP	Mobile Landing Platform
MSC	Military Sealift Command
NAVSEA	Naval Sea Systems Command
NAVSHIPSO	NAVSEA Shipbuilding Support Office
NDRF	National Defense Reserve Fleet
NHHC	Naval History & Heritage Command
NVR	Naval Vessel Register
OOA	Out of Action
PC	Patrol Coastal
PCU	Pre-Commissioning Unit

PMARS	Property Management & Archive Record System (MARAD)
ROS	Reduced Operating Status
RRF	Ready Reserve Fleet
SASDT	Ship Annual Supplemental Data Tables (Formerly, Ships and Aircraft Supplemental Data Tables)
SCN	Shipbuilding and Conversion, Navy
SSBN	Ballistic Missile Submarine (nuclear-powered)
SSGN	Guided Missile Submarine (nuclear-powered)
SSN	Attack Submarine (nuclear-powered)
T-AE	Ammunition Ship
T-AGM	Missile Range Instrumentation Ship
T-AGOS	Ocean Surveillance Ship
T-AGS	Surveying Ship
T-AH	Hospital Ship
AK/T-AK	Cargo Ship
T-AKE	Dry Cargo and Ammunition Ship
AKR/T-AKR	Vehicle Cargo Ship
T-AO	Oiler
T-AOE	Fast Combat Support Ship
T-ARC	Cable Repairing Ship
T-ARS	Salvage and Rescue Ship
T-ATF	Fleet Ocean Tug
UIC	Unit Identification Code
USNS	United States Naval Ship
USS	United States Ship

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